Improving the Effectiveness of Individual Training Accounts: Long-Term Findings from an Experimental Evaluation of Three Service Delivery Models

Final Report

October 2011

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MATHEMATICA
Policy Research

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EXECUTIVE SUMMARY

Following passage of the Workforce Investment Act of 1998 (WIA), local workforce investment areas have been required to use individual training accounts (ITAs) to fund most occupational training activities. With some restrictions, customers of the One-Stop system can use ITAs to select training from a wide array of state-approved programs and providers. States and local offices have a great deal of flexibility in deciding how to structure ITAs. At one extreme, local counselors can play a pivotal role in directing customers to particular training programs and closely tailoring ITA award amounts to each customer's needs. At the other extreme, local staff can play a minor role, providing all customers with the same fixed ITA amounts, allowing customers to choose their training programs independently, and providing counseling only on request.

This report presents long-term results from an experimental evaluation of the effectiveness of three different models for delivering ITA services, with impacts measured six to eight years after program enrollment. The Employment and Training Administration (ETA) at the U.S. Department of Labor designed the ITA experiment to provide federal, state, and local policymakers, administrators, and program managers with information on the tradeoffs inherent in different ITA service delivery models.

As a part of the experiment, nearly 8,000 customers of One-Stop Centers in eight different sites were randomly assigned to one of the three ITA service delivery models tested in the ITA Experiment. These models varied along three policy-relevant dimensions (Table ES.1): (1) *the ITA award structure* (that is, whether the award amount was fixed for all customers or tailored to the customer's needs); (2) *required counseling* (that is, whether ITA counseling was mandatory or optional, and its intensity); and (3) *program approval* (that is, whether counselors could reject customers' training choices and deny an ITA, or had to approve them if the customer had completed his or her ITA requirements).

Table ES.1. The Three Service Delivery Models Tested in the ITA Experiment

	Model 1: Structured Choice	Model 2: Guided Choice	Model 3: Maximum Choice
ITA Award Structure	Customized	Fixed	Fixed
Required Counseling	Mandatory, most intensive	Mandatory, moderate intensity	Voluntary
Counselor Discretion to Reject Customer's Program Choice	Yes	No	No

THE THREE ITA SERVICE DELIVERY MODELS

WIA gives states and local areas a great deal of flexibility in setting the value and other parameters of ITAs, and in deciding how much guidance and direction counselors provide to customers as they formulate their training decisions. Because of this flexibility, the ITA experiment tested models designed to reflect both the policies that local workforce agencies commonly use to administer ITAs and the diversity of approaches allowable under WIA. Table ES.2 describes the elements of the three ITA models tested in the experiment in more detail.

In the middle of the spectrum of models tested, Guided Choice was designed to represent the ITA model that most local workforce agencies would adopt absent the experiment. At one end of the spectrum, the Structured Choice model placed greater emphasis on counselor guidance and somewhat less on customer choice. The Maximum Choice model, at the opposite end of the spectrum, reversed this emphasis and specified a much smaller role for local counselors.

The ITA amount also varied across the approaches. Under Structured Choice, the counselor could tailor the ITA amount to the customer's need, subject to a high cap on awards. Under Guided Choice and Maximum Choice, the ITA amount available to the customer was a modest, fixed value award.

Table ES.2. Key Features of the ITA Service Delivery Models

Structured Choice	Guided Choice	Maximum Choice
Model Philosophy		
Maximize return on local WIA investments on training	Balance customer choice and counselor guidance	Maximize customer choice and flexibility
ITA Structure		
ITA amounts are "customized" to the customer's needs, subject to an upper limit or "cap"	Customers receive a fixed ITA amount that is much lower than the Structured Choice cap	Same as Guided Choice
Only counselors are aware of the cap on ITA expenditures	Both customers and counselors are aware of the fixed ITA amount before choosing a training provider	Same as Guided Choice
ITAs cover direct training costs and other training-related expenses	Same as Structured Choice	Same as Structured Choice
Required Counseling		
After ITA orientation, customers must participate in sessions covering: - High-return training - High-wage occupations in demand - Training options in customer's selected occupation - Returns-to-training for prospective programs - Feasibility of customer's training selection	After ITA orientation, customers must participate in sessions covering: - Training options in customer's selected occupation - Feasibility of customer's training selection	After ITA orientation, customers are not required to participate in further activities, but ITA counseling is available if requested.
Program Approval		
Direct customers to training selections on the ETP list that maximize return on investment	Guide customers to appropriate training strategies	Available as a resource to customers as they make training decisions
Approve customer's choice only if: - Selection is on the ETP list - Customer has completed the required counseling activities - Counselor recommends the program as a "high return" selection	Approve customer's choice if: - Selection is on the ETP list - Customer has completed the required counseling activities - Selection appears feasible with ITA and other available resources	Approve customer's choice if: - Selection is on the ETP list

ETP = Eligible Training Provider List.

THE ITA EXPERIMENT STUDY SITES

Through a grant competition, ETA selected six grantees to participate in the ITA experiment. Two grantees applied as consortia of two local workforce investment areas each. Because the local workforce investment areas in each consortium were quite different in important respects, our analyses treat them as separate study sites. Thus, eight local sites implemented the ITA experiment:

- Phoenix, AZ

- Maricopa County, AZ

- Bridgeport, CT

- Jacksonville, FL

- Atlanta, GA

- Northeast Georgia

- North Cook County, IL

STUDY SAMPLE

All new customers determined eligible for training at the study sites during the study's implementation period were informed about the experiment and asked to participate in the study. Consenting to random assignment was a condition for receipt of any WIA-funded training services and support. Enrollment of ITA study participants in the eight sites began on a rolling basis between December 2001 (in Chicago) and August 2002 (in Bridgeport). Enrollment continued for about 18 months, ending in all sites by March 2004.

In total, 7,920 customers were enrolled in the experiment; about one-third of these customers were assigned to each of the models tested. Table ES.3 shows the characteristics of customers in each of the three models. As expected, there were few significant differences between models in customers' background characteristics. However, as Table ES.3 shows, there were no more significant differences than one would expect by random chance, and the statistically significant differences were qualitatively small.

Table ES.3. Baseline Characteristics of the ITA Study Participants

Characteristics	Structured Choice	Guided Choice	Maximum Choice
Dislocated Worker	67%**	71%	69%
Earnings in Year Before RA	$21,192	$20,608	$20,289
Receiving Public Assistance at Baseline	17%	16%	16%
Employment			
Working at time of RA	11	9	9
Worked within month prior to RA	20	20	19
Worked within one year prior to RA	65	66	69
Worked over one year prior to RA	15	14	11*
Duration of Last Job (Months)	54	52	50
Age (Years)	41	41	41
Female	55	55	56
Married	42	41	40
Has Children	53	54	54
Race/Ethnicity			
White non-Hispanic	43	45	44
Black non-Hispanic	37	39	38
Hispanic	9	8	10*
Primary Language Is English	91	92	92
Highest Level of Education			
Less than high school degree	5	6	5
High school diploma or GED	59	58	63**
Associate's degree	7**	10	8
Bachelor's degree	22*	19	19
Graduate degree	7	7	5*
Has Vocational or Business Degree or Certificate	23	26	24
Sample Size	**2,644**	**2,649**	**2,627**

Source: Study Tracking System, extract as of July 2004.

RA = random assignment.

* / ** / *** Mean is significantly different from Guided Choice mean at the 0.10 / 0.05 / 0.01 level.

POTENTIAL EFFECTS OF THE ITA MODELS ON DIFFERENT STAKEHOLDERS

The ITA experiment was designed to evaluate the effects of the ITA models tested on a wide range of outcomes. Figure ES.1 summarizes the conceptual framework that guided the design of the evaluation.

Contextual factors that could affect the implementation of the ITA models and their final outcomes are shown in column I of Figure ES.1. Such factors include the emphasis the local area puts on training versus placing the customer in employment quickly; the requirements for being determined eligible for training; the availability of training programs and their costs; the availability of other funds for training; the characteristics of the customers (including whether they are dislocated workers and their demographic

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characteristics); the counselors' characteristics (such as their backgrounds and experience); and the socioeconomic characteristics of the community.

Figure ES.1. Conceptual Framework for the ITA

I. Contextual Factors	II. ITA Models	III. Intermediate Outcomes	IV. Long-Term Outcomes

Emphasis on training
Training eligibility requirements
ITA policies before the experiment
Funds for non-ITA training
Training availability and costs
Counselor characteristics
Customer characteristics
Community setting and socioeconomic characteristics
	1. Structured customer choice
	2. Guided customer choice
	3. Maximum customer choice
		Customers
		  Receipt of counseling
		  Receipt of training
		  Occupation choice
		  Program choice
		  Completion of training
		
		Workforce Investment System
		  Counselors' workload
		  ITA take-up rate
		
		Training Providers
		  Program prices
		  Programs offered
			Customer satisfaction
			Employment and earnings
			Receipt of UI benefits
			Receipt of public assistance
			Training costs
			Counseling costs

The different ITA models could affect three stakeholders: (1) customers, (2) the local workforce investment system, and (3) training providers. Column III of the conceptual framework summarizes the intermediate outcomes for each of these stakeholders.

1. The intermediate outcomes on customers include receipt of counseling, receipt of training, occupation choice, training program choice, and completion of training.

2. The ITA models could also affect the workforce development system. Therefore, the evaluation explored the impact of each model on counselors and their workloads. By affecting the likelihood of customers receiving training and the type of training program chosen, the models could also affect the cost of training.

3. Training providers could change the programs offered or prices in response to different ITA models.

The final outcomes of interest are presented in column IV of the conceptual framework in Figure ES.1. These outcomes include customers' satisfaction with their training choices and with the process of receiving an ITA. They also include employment and earnings after entry into the experiment, the types of jobs obtained, and the receipt of unemployment insurance (UI) and public assistance. Also of interest is the cost of counseling and training provided by the workforce development system.

RESEARCH QUESTIONS

Guided by this framework, the evaluation of the ITA experiment was designed to answer three broad research questions:

1. *Can the ITA models be implemented?* Are the three models in column II feasible? What challenges emerge in implementing each model? Does the success of the implementation of the model depend on contextual factors such as the availability of training programs and counselor and customer characteristics?

2. *What are the impacts of each ITA model relative to another?* How do the models differentially affect the intermediate outcomes (column III) and the final outcomes (column IV)? How do the impacts differ for different types of customers? Do the impacts depend on contextual factors (column I)?

3. *How do the benefits and costs vary by model?* How do the benefits of each model in terms of customers' outcomes compare to the costs of counseling and training under each model?

EVALUATION COMPONENTS AND DATA SOURCES

The evaluation of the ITA experiment had three components: (1) an implementation analysis, (2) an impact analysis, and (3) a benefit-cost analysis. Each component addressed one of the broad research questions above.

Implementation Analysis. The implementation analysis drew on data collected during three rounds of in-depth visits to each of the eight study sites. The first round occurred in 2002, about three months after the start of random assignment; the second in spring 2003, and the third in spring 2004. In each round, we interviewed administrators from the local workforce agency, ITA managers, and local counselors. During the second round, we also interviewed several ITA customers about their counseling and training experiences. In the third, we interviewed local training providers and collected data on time spent by counselors on activities related to ITAs.

Impact Analysis. The impact analysis was designed to estimate the impacts of the ITA models on a wide range of outcomes. We calculated the relative effects of the three models by comparing the average outcomes of customers assigned to each model. We selected Guided Choice as our reference model since it approximates most closely the procedures that local sites would have followed in the absence of the ITA experiment. Impacts were

estimated in a regression framework to adjust for any differences that occur by chance in the background characteristics of customers assigned to the three models and to improve the statistical precision of the impact estimates.

The impact analysis draws on several sources of data:

- *Study Tracking System (STS).* This information system was designed to support the operations of the ITA experiment in each study site and collect data related to participant activities in the experiment. Data were collected on all 7,920 customers enrolled in the ITA experiment.

- *Follow-up Surveys.* A random sample of 4,800 ITA study participants was selected to be interviewed about 15 months after random assignment, from November 2003 to July 2005. This same sample was contacted again for a second follow-up interview between August 2009 and May 2010. A total of 3,933 15-month follow-up interviews were completed, for a response rate of 82 percent; 3,264 study participants (which includes 373 nonrespondents to the first survey) completed the second survey, for a response rate of 69 percent.[1]

- *Administrative Data.* State administrative records on the receipt of UI-covered employment and wages were collected for all 7,920 study participants. Extracted UI earnings records cover the period from January 2000 through June 2010.

Benefit-Cost Analysis. The benefit-cost analysis synthesizes the impacts of each model on training and related counseling services, on employment and earnings, and on receipt of public assistance. We estimate the benefits and costs of switching (1) from Guided Choice to Structured Choice, and (2) from Guided Choice to Maximum Choice.

MAIN FINDINGS ON THE IMPLEMENTATION OF THE ITA MODELS

Each site in the ITA experiment was asked to implement the three ITA models described above, side by side. The ITA structure, counseling requirements, and requirements for program approval were clearly defined. To eliminate any variation in outcomes due to specific counselors, local counselors were trained in how to implement all three models. In order to assess how the models were actually implemented in the real-world conditions of the One-Stop Centers and how they deviated from the planned models, the evaluation collected implementation information through in-person interviews, focus groups, reviews of case files, and observations of counseling sessions.

Both Guided Choice and Maximum Choice were implemented as planned. Of the three models tested, local counselors felt most comfortable implementing Guided

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[1] For outcomes based on data from the follow-up surveys, our analysis uses weights so that results can be generalized to the full population of ITA study participants. Our report presents details on our weighting procedures and analysis of the characteristics of customers who did and did not respond to our surveys.

Choice and all of the study sites adopted a variant of this model after the experiment ended. Counselors were not comfortable with not providing ITA-related counseling unless customers requested it, but still implemented this model as planned, largely because of high caseloads. Study participants assigned to the Maximum Choice model rarely requested ITA-related counseling, which was not required for them.

Structured Choice was generally not implemented as planned, mainly because counselors were uncomfortable being directive in their interactions with customers. Structured Choice was designed to represent a staff-driven, directive model that would steer customers to high-return training. However, counselors were not directive in their interactions with Structured Choice customers and tended instead to defer to customers' preferences. Counselors gave two main reasons for their reluctance to be directive. First, they felt that it was not in the best interest of customers. They believed that respecting customers' choices was essential to their success in training and feared that being directive would cause customers to be less committed or forgo training altogether. Second, counselors felt ill equipped to be directive. They viewed much of the available labor market information as unreliable and quickly outdated and thus insufficient as a basis on which to gauge the likely return on a training program. Some counselors felt they were not knowledgeable enough, especially about highly specialized fields, to judge customers' choices.

Under Structured Choice, counselors were also instructed to customize ITAs to customer needs. Subject to a higher cap on ITA awards, counselors were expected to award higher-value ITAs to those Structured Choice customers who chose high-return training and to make low ITA awards or deny training altogether to the customers who chose low-return training. This was intended to help ensure that the ITA models tested were "cost neutral" for the study sites. In practice, counselors were unable to constrain spending under Structured Choice. Instead of rationing ITA resources, they tended to award Structured Choice customers ITAs that enabled them to attend their preferred training programs. On average, counselors awarded Structured Choice customers ITA awards that were about $1,800 higher than the ITAs awarded to Guided Choice or Maximum Choice customers.

MAIN FINDINGS ON CUSTOMER EXPERIENCES OBTAINING AN ITA

The ITA models differed in both their requirements for obtaining an ITA and the potential ITA amount. While Structured Choice and Guided Choice customers were required to participate in further counseling after being determined eligible for WIA-funded training, Maximum Choice customers were not. And while Guided Choice and Maximum Choice customers faced the same cap on the ITA award, Structured Choice customers could potentially receive a higher ITA award. These differences could affect customers' experiences and decisions in the process of obtaining an ITA. The models could also affect whether customers participate in any training, how training is funded, what type of program is selected, and whether customers successfully complete training.

Customers are satisfied with the support offered under all three ITA models. Between two-thirds and three-fourths of customers expressed satisfaction with (1) their ITA training options, (2) available information on training programs, and (3) ITA counseling regardless of the model to which they were assigned.

Mandatory ITA counseling discourages participation in ITA-funded training.
Before being deemed eligible for training and randomly assigned to one of the ITA models, all customers received core and staff-assisted intensive services offered at the One-Stop Centers, which could include several hours of counseling. While Maximum Choice customers were not required to participate in counseling after the ITA orientation, both Guided Choice and Structured Choice customers had additional counseling requirements. This mandatory counseling lowered both the overall training rate and the ITA take-up rate by about 7 percentage points—66 percent of Maximum Choice customers received an ITA compared with 59 percent of Guided Choice customers. Most of this difference is attributable to differences in the rate at which customers assigned to these models showed up to the ITA orientations (74 percent under Maximum Choice and 67 percent under Guided Choice). For this reason, we conclude that it was mostly the *anticipation* of additional counseling, rather than the ITA counseling itself, that discouraged participation in ITA-funded training. If this conclusion is correct, ITA take-up rates could be improved by providing more information about the nature of ITA-related counseling when eligibility for training is determined, to encourage customers to remain engaged in services.

When ITA counseling is voluntary, few customers request it. Once they were determined eligible for WIA-funded training and had attended an ITA orientation, Maximum Choice customers were not required to participate in any additional training-related counseling, although it was available if they requested it. Few Maximum Choice customers—only 4 percent—requested counseling, and most of the ones who did participated in only one additional session. Counselors reported that, more commonly, Maximum Choice customers came to the ITA orientation having already chosen a training program, and immediately afterward completed the paperwork for obtaining an ITA. However, all customers in the ITA experiment—including Maximum Choice customers— had already participated in an average of about five hours of counseling *before* being determined eligible for WIA-funded training. Hence, we do not know how customers would respond if *all* counseling—including counseling that occurs prior to the determination of eligibility for WIA-funded training—were made voluntary, or what the effects of such a change would be on customer outcomes.

MAIN FINDINGS ON THE EFFECTS OF THE ITA MODELS ON TRAINING OUTCOMES

An important question for the evaluation was whether the model used to administer ITAs influenced the choices customers make regarding training. The model could affect, for example, whether customers participate in any training, how training is funded, what type of program is selected, and whether customers successfully complete training. Notable findings regarding the effects of the ITA models on training outcomes included the following:

- *The ITA models influenced customer participation in training.* More than three-quarters of Maximum Choice customers entered training compared to 71 and 73 percent of Guided Choice and Structured Choice customers (Figure ES.2). This finding runs counter to the initial expectations of some counselors, who were concerned that, without professional guidance, Maximum Choice customers would struggle to finalize their training choices and fail to enroll in training. However, counselors reported that all ITA customers typically came to the ITA

orientations with a strong sense of the program they wanted to attend and often completed the award paperwork immediately after the orientation.

Figure ES.2. Participation in Training
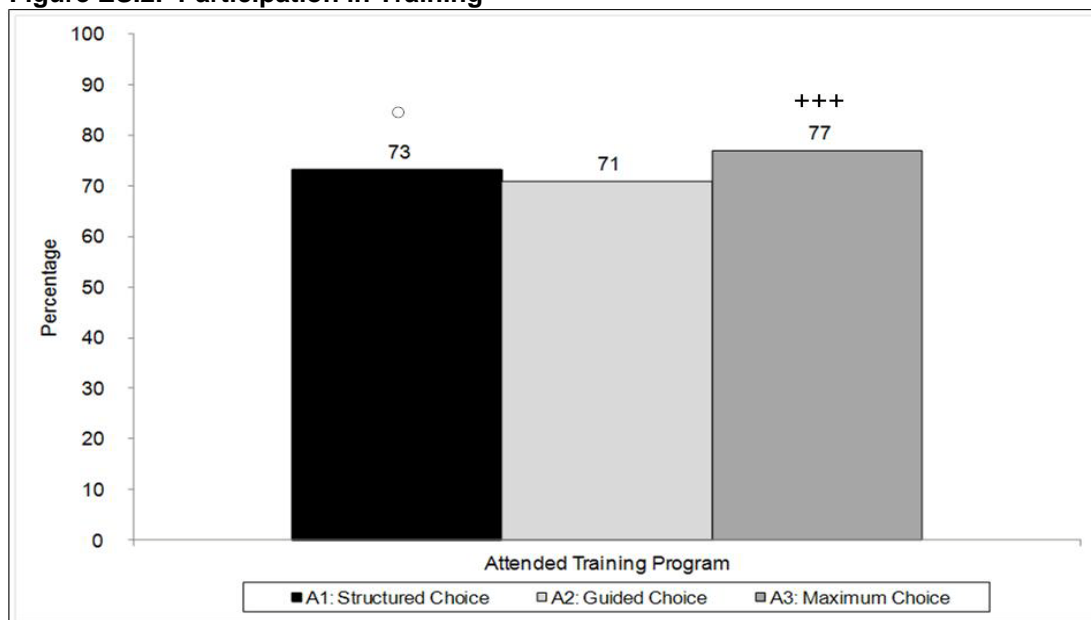
Source: 15-month follow-up survey (see Appendix Table E.1).

Notes: Sample sizes range from 1,078 to 1,105 by ITA model.

◊, ◊◊, ◊◊◊   Difference between A1 and A2 is significantly different from zero at the 0.10, 0.05, 0.01 level.
o, oo, ooo   Difference between A1 and A3 is significantly different from zero at the 0.10, 0.05, 0.01 level.
+, ++, +++   Difference between A3 and A2 is significantly different from zero at the 0.10, 0.05, 0.01 level.

- *The ITA models also influenced how training was funded and the type of provider chosen.* Maximum Choice customers were more likely than Guided Choice customers to fund their training with ITAs. Consistent with the larger awards made available under Structured Choice, customers assigned to this model were less likely than either Guided Choice or Maximum Choice customers to use personal savings to pay for training. Structured Choice customers were also more likely than Guided Choice customers to obtain training from a private vendor and less likely to attend a (public) community college.

- *The ITA models had little or no effect on training for specific occupations.* There were no significant differences across the models in the types of occupations that ITA customers chose to train for. Notably, Maximum Choice customers were not any more likely than customers with required ITA counseling to choose training for low-wage or high-turnover occupations.

- *Both Structured Choice and Maximum Choice customers were more likely than Guided Choice customers to complete a training program and to receive a certificate or degree.* Sixty-two percent of Structured Choice customers completed at least one training program that started within three years of random assignment, compared to 58 percent of Guided Choice customers (Figure ES.3). Structured Choice customers were also more likely than Guided

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Choice customers to have earned a certificate or degree upon completion of their program (57 versus 53 percent). This suggests that the larger ITA awards and/or more intensive counseling helped make Structured Choice customers more successful in completing the programs they entered. Compared to Guided Choice customers, Maximum Choice customers were also more likely to complete a training program within three years after random assignment (64 versus 58 percent) and to earn a certificate or degree (59 versus 53 percent). These differences were largely attributable to the higher training rate among Maximum Choice customers, however.

Figure ES.3. Completion of Training Programs
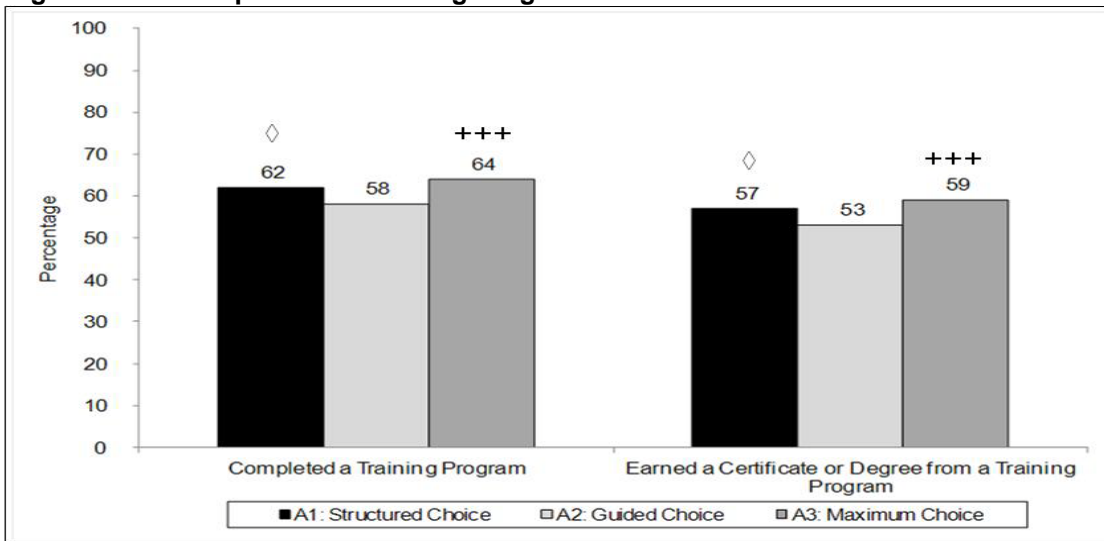
Sources: 15-month and long-term follow-up surveys (see Appendix Table E.8).

Notes: Sample sizes range from 1,078 to 1,105 by ITA model.

◇, ◇◇, ◇◇◇   Difference between A1 and A2 is significantly different from zero at the 0.10, 0.05, 0.01 level.
○, ○○, ○○○   Difference between A1 and A3 is significantly different from zero at the 0.10, 0.05, 0.01 level.
+, ++, +++   Difference between A3 and A2 is significantly different from zero at the 0.10, 0.05, 0.01 level.

MAIN FINDINGS ON THE EFFECTS OF THE ITA MODELS ON LABOR MARKET OUTCOMES[2]

The primary goal of ITAs is to facilitate the training of customers for productive employment. By either teaching new skills or strengthening existing skills, training can increase the likelihood that customers find jobs and increase their earnings once employed. If the ITA service-delivery model influences the type, quality or relevance of training, it may also affect labor market outcomes such as employment and earnings.

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[2] This analysis focuses primarily on labor market outcomes drawn from the long-term survey responses, which we regard as primary for our evaluation and use in the benefit cost analysis. The report explores the robustness of findings from the survey data using impacts on employment and earnings based on administrative records.

- *The ITA models did not affect how much customers worked during the follow-up period.* Levels of labor force participation and employment were similar for customers in all three models throughout the follow-up period. Based on survey data that collected information on job start and stop dates, customers in all three models were employed for about four-fifths of the final eight quarters of the follow-up period (Figure ES.4).

Figure ES.4. Percentage of Quarters Employed
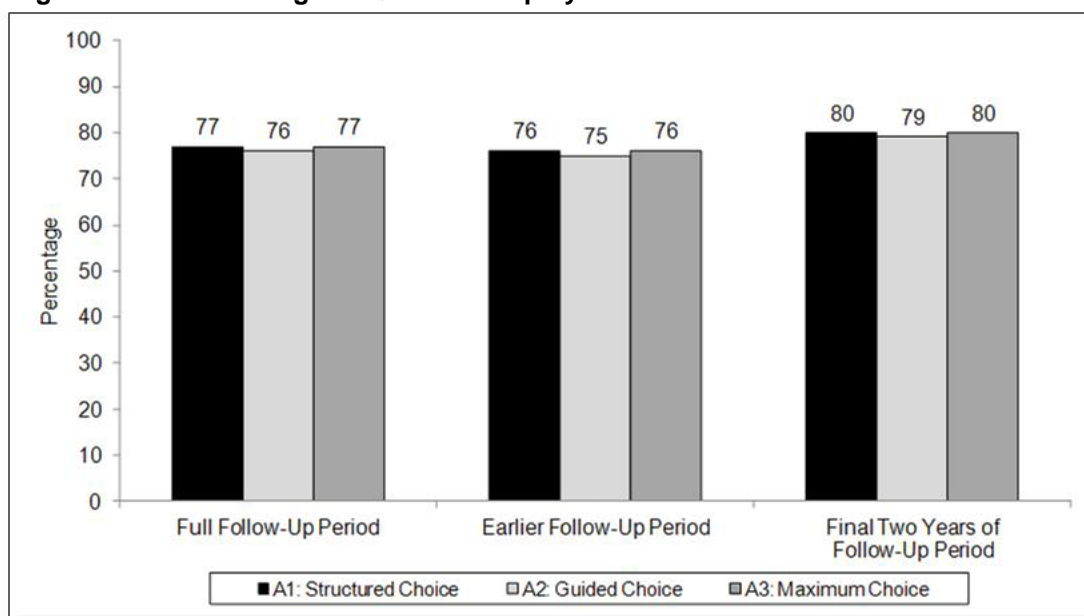
Source: Long-term follow-up survey (see Appendix Table F.2).

Notes: Sample sizes range from 1,076 to 1,104 by ITA model.

◇◇◇ / ◇◇ /◇   Difference between A1 and A2 is significantly different from zero at the 0.01/0.05/0.10 level.
○ ○ ○ / ○ ○/ ○   Difference between A1 and A3 is significantly different from zero at the 0.01/0.05/0.10 level.
+ + + / + + / +   Difference between A2 and A3 is significantly different from zero at the 0.01/0.05/0.10 level.

- *Structured Choice customers spent more time employed in high-wage jobs than Guided Choice or Maximum Choice customers (24 versus 20 percent).* However, they were not more likely to be employed in jobs with other desirable characteristics, such as those offering fringe benefits.

- *In the last two years of follow-up, Structured Choice customers were significantly more likely than Guided Choice customers to have been employed in the occupation for which they trained.* About one-third of Structured Choice customers were employed in an occupation for which they received training in the late follow-up period, compared to about one-quarter of Guided Choice and Maximum Choice customers (Figure ES.5). This finding is consistent with customers in the Structured Choice model receiving training that provides skills better matched to the jobs available in the chosen occupation.

Figure ES.5.   Percentage of People Employed During the Follow-Up Period in an Occupation Matching Their Training Program

Sources: 15-month and long-term follow-up surveys (see Appendix Table F.3).

Notes: Sample sizes range from 768 to 830 by ITA model.

◊◊◊ / ◊◊ /◊   Difference between A1 and A2 is significantly different from zero at the 0.01/0.05/0.10 level.
o o o / o o / o   Difference between A1 and A3 is significantly different from zero at the 0.01/0.05/0.10 level.
+ + + / + + / +   Difference between A2 and A3 is significantly different from zero at the 0.01/0.05/0.10 level.

- *The higher wages of Structured Choice customers translated into higher earnings than those of Guided Choice customers, particularly in the late follow-up period.* During the final two years of the follow-up, Structured Choice customers earned about $7,200 per quarter, over $500 more than Guided Choice customers (Figure ES.6). The difference in average earnings between Structured Choice and Guided Choice customers was also large and statistically significant earlier in the follow-up period. Maximum Choice customers had average quarterly earnings during the follow-up period that were not significantly different from the earnings of customers in either other model.

Figure ES.6. Average Quarterly Earnings During the Follow-Up Period (Survey Data)
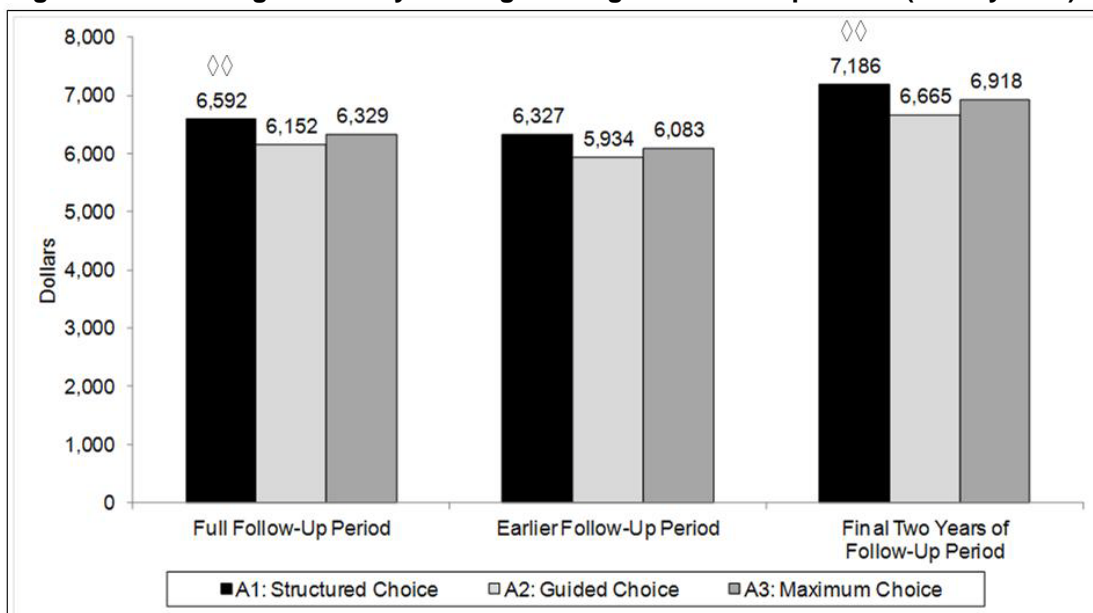
Source: Long-term follow-up survey (see Appendix Table F.5).

Notes: Sample sizes range from 1,105 to 1,078 by ITA model.

◊◊◊ / ◊◊ / ◊   Difference between A1 and A2 is significantly different from zero at the 0.01/0.05/0.10 level.
○ ○ ○ / ○ ○ / ○   Difference between A1 and A3 is significantly different from zero at the 0.01/0.05/0.10 level.
+ + + / + + / +   Difference between A2 and A3 is significantly different from zero at the 0.01/0.05/0.10 level.

FINDINGS ON THE RELATIVE BENEFITS AND COSTS OF THE ITA MODELS

The ultimate criterion for determining whether an ITA model is worth implementing is not whether it is effective in improving customers' training or employment or employment outcomes, but whether it is *effective enough* to justify its costs. To assess the relative benefits and costs of each model, the evaluation synthesized impacts on a broad range of outcomes measured in the evaluation. For example, a positive earnings impact is a benefit, and a positive impact on the value of ITA awards is a cost. The ITA experiment revealed important differences in the relative benefits and costs of the three models tested.

- *Switching to a model with higher value, customized ITA awards and intensive counseling, as under Structured Choice, could substantially benefit customers and society as a whole without increasing net government costs, but could increase costs for the workforce system.* Findings from the ITA experiment imply that customers and society would benefit markedly from a switch from the predominant ITA service delivery model (represented in the ITA experiment by Guided Choice) to a model with intensive counseling and higher potential ITA award amounts (represented in the ITA experiment by Structured Choice). Estimates from the benefit-cost analysis indicate that society would benefit by about $46,600 per ITA customer from this switch, while the benefit for customers would be about $41,000. The government also benefits from this switch, by about $5,000, because increased taxes more than offset the higher costs of larger ITA awards and somewhat more intensive counseling. A switch to Structured Choice could nevertheless represent a net increase in costs for the workforce

system, which would bear the higher ITA and counseling costs without the offsetting revenue from increased taxes.[3]

- *The benefits of switching to Structured Choice stem mainly from the higher-value, customized ITA awards possible under this model.* Because of the limited differences in counseling between the Guided Choice and Structured Choice models, we conclude that the impacts of the latter model are attributable mainly to its more generous ITA awards and the training choices that these awards made possible. However, it is difficult to know the extent to which customers' training choices under Structured Choice, and their outcomes, were influenced by counselor-customer interactions. For instance, it is possible that counselors enhanced awareness among both Structured Choice and Guided Choice customers (and encouraged both groups of customers to consider) the types of programs that Structured Choice customers ultimately attended, but that such programs proved infeasible for Guided Choice customers to attend because of their fixed ITA awards. Alternatively, it is possible that all ITA customers were already aware of the availability of such programs, but that Guided Choice and Maximum Choice customers ultimately judged them infeasible with their fixed ITA awards. Therefore, we do not know whether similar outcomes would come about if higher-value, customized ITAs were awarded without the associated ITA counseling

- *Switching from Guided Choice to Maximum Choice may prompt more customers to use ITAs to pay for training, but yield similar benefits and costs for society as a whole.* We find no evidence that switching from the predominant ITA model, Guided Choice, to Maximum Choice would benefit or cost customers, the government, or society as a whole. The net benefit to society of a switch to Maximum Choice is about $16,900. Our benefit-cost analysis suggests that customers would be the main beneficiaries from such a switch (by $17,600), mostly because of higher earnings. Relative to Guided Choice, we also estimate modest cost increases ($700) to the government, mainly because the households of Maximum Choice customers may be more likely to receive UI benefits and other public assistance. None of these estimates are statistically distinguishable from zero, however. Therefore, we conclude that switching from the predominant Guided Choice model to Maximum Choice would be neither beneficial nor harmful from a social perspective.

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[3] Costs for the workforce system would increase if the number of customers receiving ITA training assistance remained unchanged. Alternatively, fewer customers could get (more generous) ITA assistance with training.

THE ITA FINDINGS IN CONTEXT AND REMAINING QUESTIONS

Although ITAs have become well integrated into the practices of local workforce agencies today, their introduction when WIA was passed in 1998 represented an important shift for the workforce system, away from contract-based training and in favor of individually managed accounts. This shift was intended to afford customers greater flexibility and control over their training decisions. While WIA required that local workforce agencies use ITAs for most training, it also granted these agencies flexibility in how to structure and manage these individual accounts. The ITA experiment was designed to help inform such decisions.

By rigorously examining the implementation and relative impacts of three ITA models that differed along important policy dimensions, the experiment provides the best available evidence on the tradeoffs inherent in different approaches to managing customer choice under ITAs. The ITA experiment has found that society and customers would benefit greatly from a switch from the predominant Guided Choice model—which offers fixed ITAs and counseling support as customers formulate their training decisions—toward a model that preserves counseling supports but sets more generous caps on ITA awards and customizes them to customer needs. It also finds that such a switch need not be costly to the government as a whole, although it could increase costs for the workforce system. Relative to Guided Choice, the experiment also finds that embracing models that reduce or eliminate training-related counseling requirements and provide more customer flexibility need not be harmful and could encourage more WIA customers to use ITAs.

No single study can provide definitive evidence on the effectiveness or value of a particular program or policy intervention. To gain additional confidence and insights into the findings from the ITA experiment, these must be considered within the larger body of evidence to which they contribute. Recent studies by Heinrich et al. (2009) and Hollenbeck et al. (2005, 2009) help provide context for findings from the ITA experiment. Both studies use non-experimental methods; hence, the evidence they generate must be considered tentative and interpreted with caution. Heinrich et al. and Hollenbeck et al. estimate that the impacts of WIA training may average from several hundred dollars to more than $1,000 per quarter and persist over time. These estimates could be interpreted to represent the net impact on customer earnings of providing training support mainly through ITAs, as required by WIA, and under the predominant Guided Choice model. If so, they suggest that a switch to Structured Choice could significantly improve the return on investment for WIA training services.

The extended evaluation of the ITA experiment follows a sample of 4,800 study participants for six to eight years after random assignment. Regardless of model assignment, we found that customers' employment rates were very low at intake—when customers were searching for work or enrolling in training—and grew steadily over time, stabilizing at around 80 percent about a year and a half after random assignment. Customers assigned to each of the three ITA models also experienced steady increases from the very low average quarterly earnings observed at program intake. However, earnings increase more steeply and plateau at a higher level—about $500 more per quarter—for Structured Choice customers. Further, the differences in quarterly earnings between Structured Choice and other ITA customers remain positive and statistically significant in most observed quarters beyond two

years after random assignment. Projecting the estimated earnings gains for the median ITA customer (age 42 at intake) until retirement (at age 62), we estimate that a switch from the predominant Guided Choice model to Structured Choice (which would cost about $1,200 per customer) could generate benefits to society of almost $48,000, for a net benefit of more than $46,000 per customer. Few studies find net benefits of such magnitude.

Both service delivery systems and the overall policy context in which they operate are constantly evolving. Hence, it is also important to consider that the ITA models evaluated were implemented between December 2001 and March 2004, and the workforce development system may have changed in important ways since then. Two studies that examined WIA implementation (Barnow and King 2005; D'Amico et al. 2005) concluded that many local areas (absent the ITA experiment) used a Guided Choice model that constrained customer choice in notable ways. When the experiment ended, we also found that most study sites implemented ITA policies that resembled a Guided Choice model. Therefore, findings from the ITA experiment appear to remain relevant today.

Because WIA and ITA programs, as well as training markets, have surely evolved since the ITA experiment and the Barnow and King and D'Amico et al. studies were all completed, remaining questions that could be explored in the context of this evolving system include the following:

- How central is counseling overall to achieving the effects of training? What elements of WIA counseling are most beneficial?

- What is the optimal cap for ITA awards? What factors should influence the cap amount?

- If higher ITA caps were implemented across the board, may training providers offer different programs, increase prices, or respond in other ways? How would such changes influence customers' training choices and outcomes?

C H A P T E R   I

I N T R O D U C T I O N

Following passage of the Workforce Investment Act of 1998 (WIA), local workforce investment areas have been required to use individual training accounts (ITAs) to fund most occupational training activities. With some restrictions, customers of the One-Stop system can use ITAs to select training from a wide array of state-approved programs and providers. States and local offices have a great deal of flexibility in deciding how to structure ITAs. States and local areas are responsible for deciding how best to allocate their limited training resources and promote sound decision-making while preserving customer choice. At one extreme, local counselors can play a pivotal role in directing customers to particular training programs and closely tailoring ITA award amounts to each customer's needs. At the other extreme, local staff can play a minor role, providing all customers with the same fixed ITA amounts, allowing customers to choose their training programs independently, and providing counseling only on request.

This report presents results from an experimental evaluation of the effectiveness different models for delivering ITA services, with impacts measured six to eight years after program enrollment. The Employment and Training Administration (ETA) at the U.S. Department of Labor designed the ITA experiment to provide federal, state, and local policymakers, administrators, and program managers with information on the tradeoffs inherent in different ITA service delivery models.[4] The experiment tested three models that differed along three dimensions: (1) the ITA award structure, (2) counseling requirements, and (3) staff approval of program choices. Below is a brief summary of the philosophy and key features of each of the models tested. (The next chapter describes the ITA models tested and overall design of the experiment in greater detail.)

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[4] The original study, completed in 2006, was funded by ETA and conducted by Mathematica Policy Research and its subcontractors, Social Policy Research Associates and Decision Information Resources. The extended evaluation was also funded by ETA and conducted by Mathematica.

- **Structured Choice.** Designed to represent a staff-driven and directive model, Structured Choice required that customers participate in a structured sequence of ITA counseling activities that would steer them toward "high-return" training—that is, selections expected to significantly increase their lifetime earnings relative to the costs of training. Local staff customized the ITA award amount to meet the training needs of these customers and also had the authority to reject choices they deemed inconsistent with a high-return philosophy.

- **Guided Choice.** Guided Choice was designed to represent the ITA model that most local areas were implementing on their own under WIA. All Guided Choice customers were awarded a fixed ITA award, which they could use on any state-approved training program. This model also required participation in a minimum set of ITA counseling activities, aimed at helping to ensure that customers made informed training decisions. Counselors assisted customers as they completed these activities but could not reject their final program selections.

- **Maximum Choice.** Maximum Choice was designed to approximate a pure voucher model. Under this model, customers received the same fixed ITA as Guided Choice customers and could also use their ITA awards on any state-approved training program. However, unlike under Guided Choice, the only mandatory element was attendance at an orientation session at which customers learned their ITA award and the range of services available to help them decide on training (that is, all counseling required under Structured Choice or Guided Choice). Participation in any services beyond the ITA orientation was voluntary. Hence, Maximum Choice customers could secure approval of their chosen program with minimal interaction with local staff.

The ITA experiment used an experimental design to explore how these different service delivery models influenced customers, program staff, and training providers; whether the different models resulted in different training choices, employment, and earnings outcomes and customer satisfaction; and the return on investment for each model. Eight sites implemented the three ITA models, side by side, between December 2001 and March 2004.[5] All WIA customers deemed eligible for training in these sites were randomly assigned to one of the three models. The original evaluation, completed in 2006, collected information on each ITA study participant by using a form completed before random assignment, data recorded by counselors and entered into a Study Tracking System, data drawn from state unemployment insurance earnings and benefits records, and a follow-up survey conducted 15 months after random assignment. Three rounds of site visits, also conducted as part of the original evaluation, provided information on the implementation of the three ITA models and their effects on WIA program staff and local training providers. Findings from the original evaluation are reported in McConnell et al. 2006.

An important limitation of the original study was the 15-month follow-up period. About 17 percent of Structured Choice customers and 14 percent of Guided Choice and

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[5] Enrollment of participants at the study sites began on a rolling basis between December 2001 and August 2002.

Maximum Choice customers were still in training at the end of the 15-month follow-up period, and their training and employment outcomes could not be observed. It was also possible that the full effects of the three models may not have completely played out within 15 months after random assignment. To help address these concerns, ETA funded an extended evaluation of the ITA Experiment, which made it possible to follow the ITA study participants for a longer period—6 to 8 years after random assignment. To complement the data collected in the original study, the extended evaluation conducted a second follow-up survey of ITA study participants (administered between August 2009 and May 2010) and collected additional state unemployment insurance earnings records (through the second quarter of 2010).

This report presents summative findings for the evaluation of the ITA Experiment. It brings together the most important findings from the original evaluation—on the implementation and operation of the three ITA service delivery models, customer participation in ITA counseling services, receipt of ITA-funded versus other training, and occupation and training program choices—with new experimental estimates of the long-term impacts of the models on several outcomes, including customers' further participation in training, employment and earnings, characteristics of jobs held, household income, and receipt of public assistance. The report also examines the relative returns on investment of the three ITA models.

The next section of this introductory chapter provides important policy context for the evaluation. Section B provides a roadmap to the full report.

A. POLICY CONTEXT FOR THE ITA EXPERIMENT

An important goal of WIA was to reform the workforce development system by placing customer needs before program and administrative needs. Three overarching principles of WIA were especially relevant for the design of the ITA experiment. First, WIA emphasized empowering customers by giving them meaningful training choices through ITAs and information about training providers via "consumer reports." Second, WIA increased the accountability of states, localities, and training providers. As ITAs gave customers a choice of providers, the expectation was that market forces would compel providers to be accountable for customers' outcomes. Third, WIA gave states and localities flexibility in setting ITA and related policies, which we discuss in more detail below.

WIA Title I programs provide a wide range of services designed to help dislocated workers and adults (people aged 18 or older who are not dislocated workers) increase their employment opportunities. WIA divides such services into three categories:

1. *Core services* are basic services intended to help people obtain and keep employment, and include job search and placement assistance. Anyone can receive self-service and informational services that are part of core services without registering for WIA. Staff-assisted services require registration.

2. ***Intensive services*** generally include counseling, assessment, development of an individual employment plan, and short-term prevocational services. Intensive services are available only to registered WIA customers.

3. ***Training and ITA-related counseling services*** include primarily occupational and work-readiness training. Under the tiered structure established by WIA, training services are available only to registered customers who have completed a minimum set core and intensive service requirements (defined by the local workforce agency). ETA issued guidance clarifying that, despite these requirements, WIA did not require a "work first" philosophy.[6] As noted, WIA requires that local areas provide training services mainly through ITAs.

The use of ITAs was intended to transform the delivery of training services by empowering WIA customers to choose their training providers, rather than relying on counselors in the local workforce agencies to decide who should receive what type of training from which provider. At the same time, ETA recognized the need to maintain an appropriate role for local workforce agencies in the administration of ITAs. Therefore, WIA granted states and local areas a great deal of flexibility in setting the value and other parameters of ITAs, and in deciding how much guidance and direction counselors provide to customers as they formulate their training decisions.

WIA regulations allow states and local areas to restrict the type or duration of training selections they will fund. For example, training may be funded only for positions that relate to job opportunities in the local area or to the broader geographic area if the customer is willing to relocate. States and local areas can also impose limits on the duration or cost of training, which may be based on individual circumstances or established across the board.

In addition, training customers must select from among state-approved training programs on the state's ***Eligible Training Provider (ETP) list.*** To be included on the list, the state and local areas must certify that the program meets acceptable levels of performance. States and local areas are also charged with ensuring that high-quality information is available to support the training choices that customers make. To help customers make informed decisions, ***Consumer Report Systems*** offer information on provider performance and other characteristics (for example, program cost and duration).

Although ITAs are the primary means of funding training activities under WIA, there are exceptions to the use of ITAs. For example, ITAs do not fund on-the-job training, customized training provided by an employer, or training provided by an organization designed to help special populations facing multiple barriers to employment.

ETA sponsored two qualitative evaluations of the implementation of WIA that provide useful context regarding local responses to the introduction of ITAs. The more extensive

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[6] That is, ETA clarified that One-Stop customers were not required to first demonstrate that they could not secure employment by receiving only WIA-funded core or intensive services before being determined eligible for training services. Instead, WIA staff had to determine that the customer was unlikely to secure suitable employment without receiving occupational (re)training.

study, conducted by Social Policy Research Associates, involved visits to 40 local areas in 21 states (D'Amico et al. 2005). In the other study, Barnow and King (2005) examine WIA implementation in eight states.

Findings from both studies indicate that most local areas had embraced the WIA principle of customer choice by establishing ITAs and using them for most locally sponsored training. They also found that most local areas implemented a "guided choice" model that limited customer choices to some extent. Consistent with the flexibility afforded by WIA, both studies found important variation in how local ITA programs operationalized customer choice. For example, D'Amico et al. found that, across 29 sites, ITA caps ranged from $1,200 to $10,000, while four sites had no caps on ITA awards. Some programs permitted training only for occupations with strong anticipated local demand, while others allowed it for any occupation covered in the state's ETP list. Notably, both evaluations noted challenges related to the ETP list and CRS requirements. They concluded that the current approach for assembling program and performance information from training providers may be too expensive and burdensome relative to the benefits provided, and recommended efforts to make the system more flexible.

B. ROADMAP TO THE REPORT

This report provides a comprehensive assessment of the ITA experiment, including the implementation of the three ITA models tested and their impacts on customer outcomes over a period of 6 to 8 years after their random assignment. The remainder of this report is organized as follows:

- Chapter II describes in detail the three ITA service delivery models and the evaluation's overall design.

- Chapter III presents evaluation findings about the implementation and administration of the three ITA models.

- Chapter IV examines the impacts of the three ITA models on customers' participation in counseling and on their use of ITAs.

- Chapter V examines impacts on training outcomes, including the types of occupations in which customers chose to train, training providers chosen, and program completion.

- Chapter VI examines impacts on employment, earnings, and job characteristics.

- Chapter VII examines impacts on receipt of public assistance and on household income.

- Chapter VIII examines the benefits and costs of the three ITA models.

- Chapter IX examines differences in impacts for key subgroups and across study sites.

- Chapter X concludes with a summary and discussion of our findings.

Following these chapters is a series of appendices that detail the data collection process (Appendix A), how the analysis dealt with missing data (Appendix B), how the analysis estimated the relative impacts and net benefits of the three ITA models (Appendix C), and the sensitivity of key impacts to alternative analysis methods (Appendix D). Appendices E through H provide supplemental tables for chapters V through IX. Appendix I examines differences between the administrative and survey-based earnings data collected for the impact analysis. Appendix J includes the tools developed to support implementation of the three service delivery models tested in the ITA Experiment.

CHAPTER II

STUDY DESIGN

WIA allows local workforce agencies flexibility in administering training funds through ITAs. To guide policymakers on the effects of different ITA service delivery models, the ITA experiment tested three models, which varied along three dimensions: (1) whether the award amount was the same for each customer or customized to individual needs, (2) the amount and type of training-related counseling that was required, and (3) whether the local counselor could reject the program that the customer ultimately chose. The experiment used to test these models took place in One-Stop Centers in eight different sites. These settings could affect the ability of the sites to implement the models, as well as the impacts of each model.

This chapter details the design of the three ITA models tested in the experiment and the design of the study as a whole. The chapter begins by describing the three models, highlighting key differences among them (Section A). Next, to provide the context for the experiment, the chapter briefly describes the eight local sites where the experiment was implemented (Section B). It then describes the design of the evaluation, including the research questions addressed, the creation of the evaluation sample, and the implementation, impact, and benefit-cost analyses conducted (Section C).

A. THE THREE ITA SERVICE DELIVERY MODELS

The ITA experiment was designed to test the effectiveness of three distinct models to managing customer choice in the administration of ITAs. Table II.1 summarizes the key dimensions of variation among these service delivery models, all of which allowed customer choice, but differed in the role that local counselors played and the structure of the ITA award.

Three broad objectives guided the selection of these three models. First, it was desirable for the models to represent the spectrum of ITA models that were emerging in the early days of WIA. Based on our examination of these emerging ITA models, we defined a set of models that represented different balances between customer choice and counselor

Table II.1. The Three Service Delivery Models Tested in the ITA Experiment

	Model 1: Structured Choice	Model 2: Guided Choice	Model 3: Maximum Choice
Award Amount	Customized	Fixed	Fixed
Counseling	Mandatory, most intensive	Mandatory, moderate intensity	Voluntary
Can Counselors Reject Customers' Program Choices?	Yes	No	No

guidance in the formulation of training decisions.[7] The model that sites were most likely to adopt without the experiment (Guided Choice) falls in the middle of the spectrum. Then, at one end of the spectrum, we specified a model that placed greater emphasis on counselor guidance and somewhat less on customer choice (Structured Choice). At the opposite end, we specified an ITA model that reversed this emphasis and specified a much smaller role for counselors (Maximum Choice). The limit or cap on the ITA amount also varied along this spectrum. Under Structured Choice, the counselor could decide the amount of the ITA; under the other two models, the ITA award amount was fixed.

The second objective in selecting the models to test was to promote innovation in the use of vouchers. In the early days of WIA, most local agencies adopted ITA models along the lines of the "constrained choice" model identified by Barnow and Trutko (1999), and there was little deviation from this model.[8] Because of the limited evidence available on the effects of alternative models and their own limited experience with vouchers, states and local areas appeared reluctant to develop ITA models that provided substantial customer choice or, alternatively, that restricted customer choice in substantial ways. Therefore, to make the experiment as informative as possible, we selected models that, while feasible, pushed sites a bit beyond their "comfort zone" in the spectrum described above. That is, we selected models that offered either greater customer choice or more intensive counseling than local workforce agencies were inclined to provide on their own. However, the ITA models selected were still fully consistent with WIA and likely to be of interest to other local sites implementing these types of programs.

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[7] We identified these approaches through (1) a review of findings from the evaluation of the Career Management Account demonstration (Public Policy Associates 1999); (2) site visits to two WIA early implementation states (Pennsylvania and Texas); and (3) site visits to One-Stop Centers in Phoenix, Arizona; Baltimore, Maryland; Lowell, Massachusetts; Marlette, Michigan; and Killeen, Texas.

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Third, we selected the models to be different enough from each other that one could reasonably expect differences in customers' training choices and employment outcomes to emerge.

Counselors in the eight local sites were trained in implementing the three ITA models being tested and used structured procedures to deliver ITA-related services to customers assigned to each model. *It is important to highlight that, before being deemed eligible for training and randomly assigned to one of the ITA models, all customers received core and staff-assisted intensive services offered at the One-Stop Centers, which could include several hours of career counseling. The experiment did not alter the procedures that local sites used to deliver those services.* Research staff monitored closely the implementation of the ITA models being tested and provided technical assistance to the sites to promote fidelity to study procedures throughout the experiment.

Table II.2 describes the basic elements of each ITA service delivery model tested. Exhibits II.1 through II.3, at the end of this chapter, provide more detailed profiles of each ITA model.

B. THE ITA STUDY SITES

Through a grant competition, ETA selected six grantees to participate in the ITA experiment. In fall 2000, ETA issued a request for proposals to participate and chose the six viewed as best able to implement the experiment and issue about 550 ITAs during an 18-month period. Two grantees—one in Arizona and one in Georgia—each applied as a consortium of two local workforce investment areas. Because the local workforce investment areas in each consortium were quite different in important respects, our analyses treat them as separate study sites. Thus, eight sites implemented the ITA experiment:

1. *Phoenix, Arizona.* The grantee was the Employment and Training Division of the Human Services Department in the City of Phoenix. (It applied in a consortium with Maricopa County, Arizona). Serving an area with about 1.3 million people at the time of the ITA experiment, this grantee had three full-service One-Stop Centers serving both adults and dislocated workers, and three affiliate centers that served only adult WIA clients.

Table II.2. Key Features of the ITA Service Delivery Models

Structured Choice	Guided Choice	Maximum Choice
Model Philosophy		
Maximize return on local WIA investments on training	Balance customer choice and counselor guidance	Maximize customer choice and flexibility
ITA Structure		
ITA amounts are "customized" to the customer's needs, subject to an upper limit or "cap"	Customers receive a fixed ITA amount that is much lower than the Structured Choice cap	Same as Guided Choice
Only counselors are aware of the cap on ITA expenditures	Both customers and counselors are aware of the fixed ITA amount before choosing a training provider	Same as Guided Choice
ITAs cover direct training costs and other training-related expenses	Same as Structured Choice	Same as Structured Choice
Required Counseling		
After ITA orientation, customers must participate in weekly sessions covering: - High-return training - High-wage occupations in demand - Training options in customer's selected occupation - Returns-to-training for prospective programs - Feasibility of customer's training selection	After ITA orientation, customers must participate in weekly sessions covering: - Training options in customer's selected occupation - Feasibility of customer's training selection	After ITA orientation, customers are not required to participate in further activities, but counseling is available if requested.
Program Approval		
Direct customers to training selections on the ETP list that maximize return on investment	Guide customers to appropriate training strategies	Available as a resource to customers as they make training decisions
Approve customer's choice only if: - Selection is on the ETP list Customer has completed the required counseling activities - Counselor recommends the program as a "high return" selection	Approve customer's choice if: - Selection is on the ETP list - Customer has completed the required counseling activities - Selection appears feasible with ITA and other available resources	Approve customer's choice if: - Selection is on the ETP list

2. *Maricopa County, Arizona.* The grantee was the Workforce Development Division of the Human Services Department of Maricopa County. Maricopa County surrounds Phoenix, and at the time of the experiment, the local workforce investment area included all areas in the county except Phoenix (an area containing 1.7 million people). Maricopa County had two full-service One-Stop Centers and two satellite offices.

3. *Bridgeport, Connecticut.* This grantee was the Southwestern Connecticut's Workforce Development Board, also known as The Workplace Inc. It served a population of 800,000 in 20 cities and towns, mostly in Fairfield County. The grantee had one full-service One-Stop Center in Bridgeport and two satellite centers.

4. *Jacksonville, Florida.* The grantee was WorkSource/First Coast Workforce Development, Inc.—the Workforce Development Board for Region VIII. At the time of the ITA experiment, this agency served an area containing 1.2 million people across six counties (Duval, Clay, Baker, St. Johns, Putnam, and Nassau) in seven full-service One-Stop Centers and two satellite offices.

5. *Atlanta, Georgia.* This grantee was the Atlanta Regional Commission/Atlanta Regional Workforce Board, which applied to participate in the ITA experiment in a consortium with Northeast Georgia. At the time of the experiment, the agency served seven counties in suburban Atlanta (Cherokee, Clayton, Douglas, Gwinnett, Henry, Fayette, and Rockdale) with a population of 1.3 million. Services were provided in three full-service One-Stop Centers and four satellite offices.

6. *Northeast Georgia.* This grantee was the Northeast Georgia Regional Development Center/Northeast Georgia Workforce Board. It was the smallest study site—it served 400,000 people in 12 counties in mostly rural northeast Georgia. Services were provided at one full-service One-Stop Center, but customers could access WIA services at affiliated sites throughout the area.

7. *North Cook County, Illinois.* This grantee was Workforce Development, Inc., which served an area of about a million people in the northern part of the county that surrounds Chicago. This grantee provided services in two full-service One-Stop Centers and in its central office.

8. *Charlotte, North Carolina.* The grantee was the Charlotte-Mecklenburg Workforce Development Board, which served 700,000 people in Charlotte-Mecklenburg County. It operated four full-service One-Stop Centers.

The ITA study sites varied considerably in the size of their WIA programs (Figure II.1). The two sites in Arizona were by far the largest in the total number of adults and dislocated workers (including those who did not receive ITAs) who exited WIA in Program Year (PY) 2001.[9] Phoenix served more than 1,000 customers annually; Maricopa County served nearly 3,000. In contrast, Northeast Georgia and Charlotte both served fewer than 300 customers annually.

Figure II.1. Number of Adults and Dislocated Workers Who Exited WIA in PY 2001
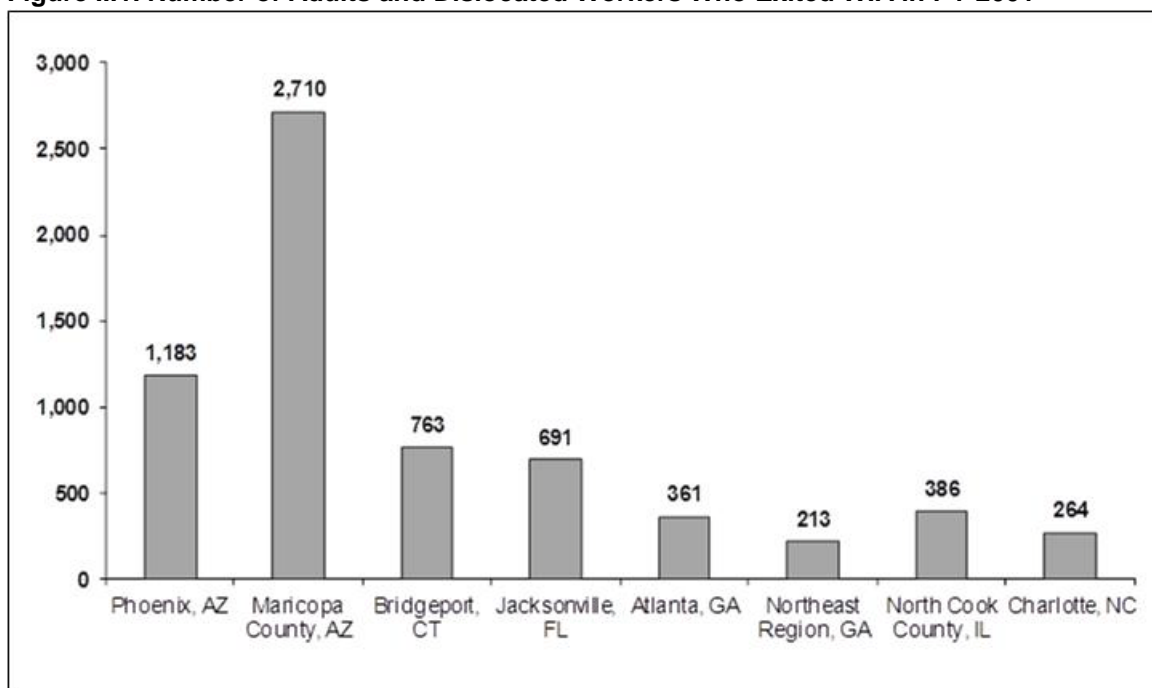
Source: Workforce Investment Act Standardized Record Data.

Several other pre-experiment policy and program differences across sites were identified and described in detail in the interim report for the original evaluation (Perez-Johnson et al. 2005). Table II.3 summarizes key differences.

Importantly, the ITA experiment grantees were selected purposively and thus are not representative of the universe of local workforce investment agencies. Indeed, many of the grantees were recognized as leaders in the workforce development field. For example, both Phoenix and Atlanta had participated in ETA's Career Management Account demonstration.[10] Most of the local areas had also operated individual-purchase or voucher-based models for training services for five or more years before implementing the ITA experiment. Jacksonville, for example, had implemented a program of "scholarship accounts" for its training customers in 1995. Atlanta first used vouchers for training in 1991.

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[9] PY 2001 refers to the period from July 1, 2001 through June 30, 2002.

[10] This demonstration was implemented prior to the passage of WIA and was designed to assess the feasibility of using of vouchers to pay for training for dislocated workers. See Public Policy Associates (1999) for more information on this study.

North Cook County had abandoned the traditional JTPA approach of contracted training 10 years before the passage of WIA, relying instead on voucher-based training purchases for all its customers since 1988.

Table II.3. Key Differences Across the ITA Study Sites

Site	Emphasis on Training	Extent of Occupational Counseling Before Random Assignment	ITA Policies Used Before the Experiment	Local Availability of Training Programs	Funding Stream Covering ITA Study Customers
Phoenix, AZ	Low	Frequently provided	Approximately Guided Choice	Wide range	Majority dislocated workers
Maricopa County, AZ	Low	Frequently provided	Approximately Guided Choice	Wide range	Majority dislocated workers
Bridgeport, CT	Medium	Sometimes provided	Between Guided Choice and Maximum Choice	Wide range	Majority adults
Jacksonville, FL	High	Rarely provided	Between Structured Choice and Guided Choice	Wide range	Majority dislocated workers
Atlanta, GA	High	Rarely provided	Approximately Guided Choice	Wide range	Majority dislocated workers
Northeast Region, GA	High	Rarely provided	Approximately Guided Choice	Limited	Majority adults
North Cook County, IL	High	Rarely provided	Between Guided Choice and Maximum Choice	Wide range	Large majority dislocated workers
Charlotte, NC	Medium	Sometimes provided	Approximately Guided Choice	Wide range	Majority dislocated workers

C. EVALUATION DESIGN

The three models included in the ITA experiment were evaluated by examining the implementation and operations of the models in the field and by assessing the activities and outcomes for the local customers who entered the experiment and were assigned to one of the three.

1. Conceptual Framework and Research Questions

The ITA experiment was designed to evaluate the effects of the ITA models on a wide range of outcomes. Figure II.2 summarizes the conceptual framework that guided the design of the evaluation. Column II in the figure represents the three models that are tested in the ITA experiment.

Contextual factors that could affect the implementation of the ITA models, their impact, and the final outcomes directly are shown in column I of Figure II.2. Such factors include the emphasis the local area puts on training versus placing the customer in employment quickly; the requirements for being determined eligible for training; the availability of training programs and their costs; the availability of other funds for training; the characteristics of the customers (including whether they are dislocated workers and their demographic characteristics); the counselors' characteristics (such as their backgrounds and experience); and the socioeconomic characteristics of the community. These factors in the eight ITA sites are described more fully in Perez-Johnson et al. (2004).

Figure II.2. Conceptual Framework for the ITA Evaluation

Chapter II: Study Design

The different ITA models could affect three stakeholders: (1) customers, (2) the local workforce investment system, and (3) training providers. Column III of the conceptual framework summarizes the intermediate outcomes for each of these stakeholders.

1. The intermediate outcomes on customers include receipt of counseling, receipt of training, occupation choice, training program choice, and completion of training.

2. The ITA models could also affect the workforce development system. Therefore, the evaluation explored the impact of each model on counselors and their workloads. By affecting the likelihood of customers receiving training and the type of training program chosen, the models could also affect the cost of training.

3. Training providers could change the programs offered or prices in response to different ITA models.

The final outcomes of interest are presented in column IV of the conceptual framework in Figure II.2. These outcomes include customers' satisfaction with their training choice and with the process of receiving an ITA. They also include employment and earnings after entry into the experiment, the types of jobs obtained, and the receipt of unemployment insurance (UI) and public assistance. Also of interest is the cost of counseling and training provided by the workforce development system.

Within this framework, the objectives of the evaluation can be summarized in three broad research questions:

1. *Can the ITA models be implemented?* Are the three models in column II feasible? What challenges emerge in implementing each model? Does the success of the implementation of the model depend on contextual factors such as the availability of training programs and counselor and customer characteristics?

2. *What are the impacts of each ITA model relative to another?* How do the models differentially affect the intermediate outcomes (column III) and the final outcomes (column IV)? How do the impacts differ for different types of customers? Do the impacts depend on contextual factors (column I)?

3. *How do the benefits and costs vary by model?* How do the benefits of each model in terms of customers' outcomes compare to the costs of counseling and training under each model?

The evaluation of the ITA experiment had three components: (1) an implementation analysis, (2) an impact analysis, and (3) a benefit-cost analysis. Each component addressed one of the broad research questions above.

2. Sample Development and Random Assignment

To answer the broad research questions presented above, the evaluation used a rigorous experimental design to test the three ITA models side by side in the eight study sites. All new customers determined eligible for training at these sites during the study's implementation period were randomly assigned to one of the three experimental models. To eliminate any variation in outcomes due to specific counselors, all counselors worked with customers assigned to all three models.

The use of random assignment ensures that customers assigned to the three models will have the same characteristics, on average. As a result, any observed differences in participant outcomes can be attributed directly to differences in the ITA models with a known degree of statistical precision. Table II.4 shows the characteristics of customers in each of the three models. As expected, there were few significant differences between models in these characteristics. Even in a randomized experiment, there will generally be a few differences between groups when looking at a broad set of baseline characteristics, and we observe a handful of significant differences between the groups. However, there are no more significant differences than we would expect by random chance, and the statistically significant differences are qualitatively small.

All customers who were determined eligible for WIA-funded training during the study intake period were informed about the experiment and asked to participate in the study. Consenting to random assignment was a condition for receipt of any WIA-funded training services and support. Therefore, the few customers who refused to participate in the experiment were automatically disqualified from receiving training services.

Mathematica staff conducted random assignment, generally within 48 hours of being notified by a site that a new customer was ready for random assignment. To ensure the integrity of random assignment, we followed three general rules: (1) *all* customers found eligible for training during the intake period for the evaluation were randomly assigned, (2) customers could be sent for random assignment only once, and (3) each customer had to participate in the model to which they were assigned.

Enrollment of ITA study participants in the eight sites began on a rolling basis between December 2001 (in Chicago) and August 2002 (in Bridgeport). Enrollment continued for about 18 months, ending in all sites by March 2004. In total, nearly 8,000 customers were enrolled in the experiment. They were not, however, evenly distributed across the sites (Table II.5). Atlanta and North Cook County were the largest sites, serving 18 and 23 percent of all customers respectively, while Northeast Georgia served only 2 percent. About one-third of these customers were assigned to each of the three models.

Table II.4. Baseline Characteristics of ITA Study Participants

Characteristics	Structured Choice	Guided Choice	Maximum Choice
Dislocated Worker	67%**	71%	69%
Earnings in Year Before RA	$21,192	$20,608	$20,289
Receiving Public Assistance at Baseline	17%	16%	16%
Employment			
Working at time of RA	11	9	9
Worked within month prior to RA	20	20	19
Worked within one year prior to RA	65	66	69
Worked over one year prior to RA	15	14	11*
Duration of Last Job (Months)	54	52	50
Age (Years)	41	41	41
Female	55	55	56
Married	42	41	40
Has Children	53	54	54
Race/Ethnicity			
White non-Hispanic	43	45	44
Black non-Hispanic	37	39	38
Hispanic	9	8	10*
Primary Language Is English	91	92	92
Highest Level of Education			
Less than high school degree	5	6	5
High school diploma or GED	59	58	63**
Associate's degree	7**	10	8
Bachelor's degree	22*	19	19
Graduate degree	7	7	5*
Has Vocational or Business Degree or Certificate	23	26	24
Sample Size	**2,644**	**2,649**	**2,627**

Source: Study Tracking System, extract as of July 2004.

RA = random assignment.

* / ** / *** Mean is significantly different from Guided Choice mean at the 0.10 / 0.05 / 0.01 level.

Table II.5. Distribution of the Study Sample across Sites

Site	Number of Customers	Percentage of Total Sample
Phoenix, AZ	646	8.2
Maricopa County, AZ	673	8.5
Bridgeport, CT	1,033	13.0
Jacksonville, FL	779	9.8
Atlanta, GA	1,408	17.8
Northeast Region, GA	171	2.2
North Cook County, IL	1,807	22.8
Charlotte, NC	1,401	17.7
Total	**7,920**	**100.0**

3. Evaluation Components and Data Sources

As described previously, the evaluation had three components, each dedicated to one of the three key research questions. They each contribute important information about the tradeoffs inherent in different models for managing customer choice under ITAs.

a. The Implementation Analysis

The implementation analysis had three main objectives: (1) to address whether each model was feasible; (2) to provide qualitative information on the effects of the models on customers, workforce investment staff, and training providers; and (3) to assess qualitative cross-site differences in the implementation of the ITA models.

The implementation analysis drew on data collected during three rounds of in-depth visits to each of the eight study sites. The first round occurred in 2002, about three months after the start of random assignment; the second was in spring 2003, the third in spring 2004. In each round, we interviewed administrators from the local workforce agency, ITA managers, and local counselors. During the second round, we also interviewed several ITA customers about their counseling and training experiences. In the third, we interviewed local training providers and collected data on time spent by counselors on activities related to ITAs. Chapter III presents our findings.

b. The Impact Analysis

The impact analysis was designed to estimate the impacts of the ITA models on a wide range of outcomes. The use of random assignment implies a fairly straightforward approach to determining the relative impacts of the different ITA models—the impacts can be estimated by comparing the mean outcomes for people assigned to each model. We calculate the relative effects of the three models by comparing the average outcomes of customers.

We concentrate on the comparisons of outcomes for customers assigned to Structured Choice and Maximum Choice versus Guided Choice. We selected Guided Choice as our reference since it approximates most closely the procedures our study sites would have

followed in the absence of the ITA experiment. For reference, we also show comparisons of Structured Choice and Maximum Choice.

The impact analysis draws on several sources of data:

- *Study Tracking System (STS).* The STS, a customized management information system, was designed to support the operations of the ITA experiment in each study site and collect data related to participant activities in the experiment. Using paper forms corresponding to the data fields in the STS, local staff were asked to track participant intake information, participation in services, training status, training expenditures, and basic training outcomes (to the extent known). Data were collected on all 7,920 customers in the ITA experiment.

- *Follow-up Surveys.* A random sample of 4,800 ITA study participants was selected to be interviewed about 15 months after random assignment, from November 2003 to July 2005. This same sample was contacted again for a second follow-up interview between August 2009 and May 2010. The first follow-up survey contained questions about the customer's ITA counseling experiences, satisfaction with counseling, participation in training and program selections, employment and earnings, and receipt of public assistance. The second asked about further participation in training, employment and earnings, and receipt of public assistance since the first survey was completed. A total of 3,933 15-month follow-up interviews were completed, for a response rate of 82 percent; 3,264 study participants (which includes 373 nonrespondents to the first survey) completed the second survey, for a response rate of 69 percent. Respondents to both surveys or to the second survey alone (3,264) are included in the analyses in this report.

- *Administrative Data.* To supplement the information gathered through the STS and follow-up surveys, we collected state administrative records on the receipt of UI-covered employment and wages for all 7,920 study participants. Extracted UI earnings records cover the period from January 2000 through June 2010.[11]

Because customers were randomly assigned to one of the models, we could obtain unbiased estimates of the relative effects of the models by simply comparing the average outcomes for customers in any two models. In practice, we estimated impacts in a regression

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[11] State administrative records on receipt of UI benefits were collected and examined as part of the original evaluation, but not for this extended evaluation for two main reasons. First, we found collecting these data for the 15-month follow up particularly costly and time consuming. For example, one state could only provide hard copy reports that had to be data entered. Second, data on receipt of UI benefits are collected in the survey. The survey-based findings on UI receipt were similar to those based on administrative data in original study.

framework to adjust for any differences that occur by chance in the background characteristics of customers assigned to the three models and to improve the statistical precision of the impact estimates. Appendix C provides more details on the impact estimation, and Appendix D discusses the sensitivity of findings to the estimation method.

To obtain estimates of the impacts of a model, we compare the regression-adjusted average outcome of all customers assigned to one model to the average outcome for all customers assigned to another model. Sometimes we also compare the outcomes of subgroups of customers, where the subgroups are defined by another outcome. For instance, we may be interested in comparing the length of time customers in the models spent in training among customers who entered a training program. Because the customers who entered training are not a random sample of all customers—and, in particular, entering training at all may be affected by which model a customer was assigned—we cannot interpret differences across models in the outcomes of this group as the "impact" of the model. We call these differences *conditional*—since they are conditional on an outcome measure—and do not interpret the results as implying a causal relationship.

Our impact estimates reflect the relative impacts of the three models among the customers in the eight sites in the experiment. For some outcomes, such as those from the STS or the UI wage data, we have measures for all customers assigned to one of the three models in the eight sites. However, for outcomes based on data from the follow-up surveys, we use weights so that results can be generalized to the full population of ITA study participants across the eight study sites. The weights were designed to allow the customers who responded to the survey to represent the population of customers in the ITA experiment, accounting for differences in the baseline characteristics of respondents and nonrespondents. Appendix B provides more details on our weighting procedures and the characteristics of customers who did and did not respond to the survey.

Our discussion of impacts focuses on overall differences in outcomes across all models for all study sites combined. We obtained these overall differences by pooling all study participants assigned to a given model across our study sites, giving each equal weight. Our rationale for pooling across sites is based on three factors: (1) all sites were asked to implement the same three models; (2) the implementation of the models was similar across our study sites; and (3) while the contextual factors varied across the sites, we saw them as having a limited influence on the outcomes of ITA study participants by model (see Chapter III).

To assess the variability of impacts across sites and customer characteristics, we also developed estimates of impacts separately for each of the eight study sites and for selected subgroups of customers. The subgroup analyses were based on the following customer characteristics:

- Dislocated or adult worker status (as defined by WIA)

- Education level

- Vocational certification at the time of random assignment

- Whether 40 or older at the time of random assignment

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- Gender

- Race and ethnicity

- Whether enrolled in training at the time of random assignment

This report presents the impacts of the models on customers' experiences obtaining an ITA (Chapter IV), training outcomes (Chapter V), employment and earnings (Chapter VI), and other income-related outcomes (Chapter VII). Chapter IX summarizes key findings from our site and subgroup analyses.

c. The Benefit-Cost Analysis

If the impact analysis shows significant differences in outcomes across the three ITA service delivery models, policymakers will need to determine which model is the most cost-effective investment of public funds. The key criterion for determining whether a given model is worth implementing is not whether it is effective in improving outcomes, but whether it is effective *enough* to justify its costs. The benefit-cost analysis synthesizes the impacts of each model on training and related counseling services, on employment and earnings, and on receipt of public assistance. To compare the benefits and costs of each model in the same metric, we place a dollar value on each outcome. We estimate the benefits and costs of switching (1) from Guided Choice to Structured Choice, and (2) from Guided Choice to Maximum Choice. The findings from this analysis are reported in Chapter VIII.

Exhibit II.1. Profile of the Structured Choice ITA Service-Delivery Model

Overview

Structured Choice was the most intensive of the ITA service-delivery models tested. Counselors were instructed to direct customers to "high-return" training programs—those expected to generate large gains in the customer's lifetime earnings relative to the costs of training—and could reject choices that were not consistent with this approach.

ITA Structure

Under Structured Choice, the ITA award was set at a different amount for each customer, based on the program the customer chose and the counselor approved. The value of this customized ITA equaled the total cost of the program minus any other financial support the customer was expected to receive (for example, from Pell grants).

Originally, Structured Choice was designed with no ceiling or "cap" on ITA awards, so that counselors would have complete flexibility to set ITA awards to cover training expenditures they viewed as appropriate. However, administrators at the study sites were uncomfortable with this model. Instead, the cap for Structured Choice awards in each site was set to be high enough—and much higher than the cap under Guided Choice and Maximum Choice—to allow Structured Choice customers to select, from the ETP list, relatively high-cost programs that might yield high returns.

Although the ITA cap under Structured Choice was much higher than under Guided Choice and Maximum Choice, the study sites were also asked to strive to spend about the same total amount on each model. Because counselors determined ITA awards and could reject customer's choices under Structured Choice, the expense of some higher awards could be offset by some smaller awards or by the counselor's rejection of some training choices altogether.

Counselors were instructed not to disclose the Structured Choice cap to customers but rather to tell them that their ITA awards would be customized based on their training needs.

In all models, the ITAs of Structured Choice customers covered only direct training costs, including tuition, fees, and other required expenses, such as books or tools. Customers could receive WIA assistance with other training-related needs (such as child care or transportation), but not through ITA funds.

Required Counseling

Local staff were asked to guide Structured Choice customers through a structured sequence of training-related counseling activities, designed to help the customers and counselors identify high-return strategies and help the counselors determine the appropriate ITA amount. These counseling activities were *mandatory* for Structured Choice customers.

Counseling activities were facilitated by a set of forms to be completed by the ITA customers and other tools developed by the research team to help counselors carry out the activities required under each model. These tools were intended to help standardize the content and structure of the ITA counseling activities across study sites.

Orientation. After customers were randomly assigned and notified of their assigned model, they were invited to a mandatory orientation. A separate orientation was held for each model and could be conducted individually or in a group. The Structured Choice orientation was intended to provide customers with a comprehensive review of the services that would help them choose an appropriate training program. Counselors were given a script for administering the orientation.

Selecting a High-Return Occupation. The next set of activities for Structured Choice customers were designed to help them to identify one or two occupations that they were interested in, were expected to offer strong prospects for employment and relatively high wages, and were appropriate given their skills and experience. To identify these potentially high-return occupations, Mathematica developed two tools that counselors were asked to share with their Structured Choice customers:

1. ***Guide to High-Return Training.*** This handbook was designed to introduce customers to the concept of high-return training. It discussed factors that might affect customers' chances of realizing the expected gains from training, and explained how the concept of "high return" could guide customers' exploration of training options.

2. ***List of High-Wage, High-Demand Occupations.*** This was a list of occupations considered to offer high wages and enjoy high demand in the local area. Each study site, together with Mathematica staff, developed an initial list, which local administrators could update as appropriate. The list was intended as a resource, rather than a constraint on training choices. Structured Choice customers were allowed to choose occupations not on the list if the counselor believed that the customer's choice represented an occupation with strong prospects for employment in the local area and the potential for relatively high wages.

Mathematica also developed an ***Occupational Research Worksheet*** to help Structured Choice customers explore options. Use of this worksheet was not mandatory, however. The worksheet guided customers in researching the education, skills, and experience needed to enter each occupation; the demand for the occupation in the local economy; the providers of training for the occupations; starting salaries and benefits; typical work schedules; and the potential for growth in each occupation.

Program Research. After selecting from the ETP list at least one high-wage occupation and two training programs to research, the customer was asked to research the training programs. Four tools were developed to aid the customer in this and, with the counselor's help, analyze the benefits and costs of each program:

1. ***Program Research Form.*** This worksheet was designed to help customers investigate important features of prospective training programs. The customers were encouraged to collect some of the information during a visit to the program.

2. ***Training Costs Form.*** This worksheet was designed to help customers assess how a program's training costs compare to the resources they are likely to have to pay for training. Structured Choice customers had to complete this form for each prospective program.

3. ***Training Costs and Benefits Worksheet.*** This was designed to help *counselors* estimate the returns to training for each program that the Structured Choice customer researched. It guided the counselor through estimating (1) the costs of the training to the local agency, (2) the total earnings gains the customer could expect to receive from completing training, and (3) the net present value of the returns to training.

4. ***Program Endorsement Worksheet.*** This was designed to help *counselors* consider financial and nonfinancial factors likely to influence the customer's success in training and determine whether to endorse specific training options. Examples of these factors would be the net returns to training, the appropriateness of the program, the probability of completing training, the probability of finding employment, and the length of the course. Counselors were to endorse those programs they believed could yield a high return on investment for the Structured Choice participant.

Program Feasibility. After the Structured Choice customer selected a program and the counselor endorsed the selection, the counselor had to determine whether the customer would have enough resources to be able to complete the program. Together, the counselor and customer completed two worksheets:

1. ***Income and Expenses Worksheet,*** which was designed to examine whether customers would be able to support themselves and any dependents while attending training.

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2. ***Training Budget Worksheet***, which helped customers determine how their household's cash flow may be affected by out-of-pocket costs for training.

After completing these activities, counselors could disapprove previously endorsed programs that customers were unlikely to be able to complete because of financial constraints.

Program Approval

A unique feature of the Structured Choice model was that counselors could reject training choices that were not consistent with the *high-return* philosophy of the model. The approval of Structured Choice program selections was based on three conditions: (1) the program had to be on the ETP list (as in all models), (2) it had to be considered high-return and had to be endorsed by the counselor, and (3) the customer had to be able to complete the training. Under Structured Choice, counselors could reject a customer's training selection if it failed to meet any one of the three conditions. Moreover, counselors determined the awards made to these customers. Thus, counselors had a high degree of control in directing customers to programs that promised the highest returns on investment.

Exhibit II.2. Profile of the Guided Choice ITA Service-Delivery Model

Overview

Guided Choice was designed to broadly represent the model that most local areas were implementing on their own under WIA. Relative to Structured Choice, Guided Choice reduced the counseling requirements and the ability of local staff to veto the customer's choice. Counselors were instructed to help Guided Choice customers make informed decisions about training, but unlike under Structured Choice, they were not required to be directive. Customers were limited by a fixed cap on the ITA funds available to them.

ITA Structure

An important distinction between Guided Choice and Structured Choice was that Guided Choice customers received a "fixed" ITA award, which limited the resources they could spend on training. This fixed ITA amount was established for each participating local area, and no exceptions were allowed.

Guided Choice customers learned the amount of their fixed ITA award at the orientation at the start of their counseling.

As with Structured Choice customers, fixed ITA awards could be used to pay for direct training costs only. If the customer chose a training program that cost less than the fixed ITA award, the workforce agency retained the difference and could use it for other customers.

Required Counseling

Counselors were instructed to help Guided Choice customers identify training options that were appropriate (given their skills, interests, and background) and feasible (given their fixed ITA awards and other resources available to them).

Compared to Structured Choice, customers assigned to Guided Choice were required to complete a more limited set of training-related counseling activities.

The first counseling activity was the Guided Choice **Orientation**.

Like Structured Choice customers, Guided Choice customers then had to:

- Research proposed programs using the **Program Research Form**.

- Estimate the full costs of the program chosen using the **Training Costs Form**.

- Inventorying likely income sources and expenses for the household while in training, using the **Income and Expenses Worksheet** and the **Training Budget Worksheet.**

Guided Choice customers did *not* have to review the Guide to High-Return Training, consider the List of High-Wage, High-Demand Occupations, or estimate the return of their proposed training investment. However, counselors were asked to inform Guided Choice customers that these resources and services were available upon request.

In addition, Guided Choice customers used a **Training Options Comparison Worksheet** to evaluate side-by-side the training programs they had researched. In contrast to Structured Choice, the *customer* completed this worksheet, and counselors used a set of open-ended questions at the end of the form to begin a conversation with customers about the pros and cons of their various training options.

Program Approval

Counselors were instructed to approve the program selections of Guided Choice customers based on only two criteria: (1) the program had to be on the ETP list, and (2) the customer had to complete the Guided Choice counseling requirements.

While counselors could encourage Guided Choice customers to consider modest-cost programs that met their specific needs, Guided Choice customers had ultimate control over their program selections.

If counselors disagreed with a customer's selection, they could voice their opinions but were instructed to approve the program being requested if it met the approval criteria specified above.

Exhibit II.3. Profile of the Maximum Choice ITA Service-Delivery Model

Overview

Maximum Choice was designed to be the most flexible ITA model; it was intended to approximate a true voucher model.

ITA Structure

Maximum Choice customers received the same fixed ITA award as Guided Choice customers and could use their ITA awards on any training program on the ETP list. Maximum Choice customers were apprised of the cap at their orientation.)

As in the other models, ITA awards could be used only to defray direct training expenses, and the local workforce agency kept the difference between the cost of the training program chosen and the ITA award.

Required Counseling

Customers assigned to this model had only to attend a mandatory Maximum Choice orientation, at which they learned their ITA award and were told about the full range of counseling services available to help them decide on training (that is, all services required of Structured Choice and Guided Choice customers).

Participation in any counseling services beyond this orientation was voluntary.

Program Approval

The only conditions for approval of Maximum Choice customers' training selections were (1) that the selection be on the ETP list, and (2) that the customer had attended the mandatory Maximum Choice orientation. Hence, Maximum Choice customers could submit and secure approval of their training selections with only minimal interaction with counselors. For instance, they could get their chosen program approved immediately after the Maximum Choice orientation.

CHAPTER III

IMPLEMENTATION OF THE ITA MODELS

E ach local site participating in the ITA experiment was asked to implement the three ITA service delivery models described in Chapter II. The ITA structure, counseling requirements, and requirements for program approval were clearly defined, and each local counselor was trained in all three models. This chapter draws on evidence collected through in-person interviews, focus groups, reviews of case files, and observations of counseling sessions to describe how the models were actually implemented in the real-world conditions of the One-Stop Centers and how they deviated from the planned models. It also provides qualitative evidence on the responses to the models from customers, counselors, and training providers.

- *Structured Choice was generally not implemented as planned.* This happened mainly because counselors were uncomfortable with being highly directive in their interactions with customers. They did not push customers toward high-return training and rarely, if ever, vetoed customers' training choices.

- *Maximum Choice was implemented as planned.* Although counselors were uncomfortable with not providing ITA-related counseling unless customers requested it, counselors still implemented this model as planned. When ITA-related counseling was not required, customers rarely asked for it.

- *Counselors felt most comfortable implementing Guided Choice.* This model was also implemented as planned. After the experiment, all the study sites adopted a variant of this model.

This chapter begins with a description of the training and technical assistance provided to counselors and administrators who participated in the experiment (Section A). It then discusses the three distinctive components of each model—the ITA award structure, the required counseling, and the counselor's role in approving the award (sections B, C, and D). It concludes with a discussion of the sites' preferred models and the models they chose to implement after the experiment (Section E).

A. TRAINING AND TECHNICAL ASSISTANCE

Considerable attention was paid to training the counselors in each study site on implementing the three models and the experiment procedures, as well as to providing ongoing technical assistance to promote fidelity to experimental procedures. No counselors or other site staff complained about inadequate training or assistance.

Before the experiment, all counselors who were to work with customers in the experiment attended a two-day training session. One or two managers or supervisors also attended training, so they could monitor the work of the counselors and be able to train, at a later date, any new counselors who would work with experiment participants. Mathematica staff conducted the training at each of the grantee sites. Each participant received a detailed, grantee-specific training manual (Perez-Johnson and Bellotti 2001).

The training covered the specific requirements for each model. It also described in detail how to complete the forms and worksheets. Counselors were walked through how to counsel customers under each model. In addition, training covered the experiment's requirements, including the Baseline Information Form and Participation Agreement, random assignment, and completion of data collection forms. An additional day of training was devoted to the operation of the Study Tracking System.

After this initial training, designated site liaisons at Mathematica were available to answer questions and provide additional assistance. Regularly scheduled conference calls (biweekly at the beginning of the study and later monthly) were held with site staff to address their questions and monitor implementation. Site staff frequently contacted MPR with questions at other times, both by telephone and by email.

About three months after intake into the experiment began, we conducted visits to each study site. The goals of these visits were primarily to monitor the implementation of the models and the experiment and to provide further technical assistance. During these visits, we observed orientations, conducted case file reviews, and had semi-structured discussions with counselors and local managers. Based on these visits, we determined that most procedural aspects of the ITA experiment were proceeding as planned. We provided further training and technical assistance on aspects of the models that were not always being implemented correctly or about which local staff felt uncertain. Examples of the most frequently addressed issues included:

- Asking staff not to disclose the Structured Choice cap during orientation;

- Making sure staff provided detailed information on the full range of counseling services available to Maximum Choice customers during orientation;

- Minimizing the provision of unsolicited counseling to Maximum Choice customers; and

- Addressing questions about completion of the *Training Costs and Benefits Worksheet*.[12]

B. ITA STRUCTURE

One of the main ways in which the three ITA models differed was the method used to control how much each customer could spend on training. Under Structured Choice, counselors were responsible for controlling spending, and customers received a customized ITA to fully defray their training costs. The award amount under Structured Choice was capped, but at a figure that was not expected to be binding. Customers assigned to Guided Choice and Maximum Choice all received a fixed ITA award of the same amount, which was much lower than the Structured Choice cap.

1. Effect on Customer Choice

Evidence collected from discussions with counselors and customers suggests that while the higher possible award amount under Structured Choice influenced customers' choices to some degree, its effect on training choices was attenuated by two factors. First, in all sites, the cap under Guided Choice and Maximum Choice was high enough that many programs were still affordable. To some extent, this occurred because community colleges were important providers of training, and as they are partially subsidized by public funds, most of the programs they offered were affordable to customers under all three models.

Second, as discussed below, evidence suggests that providers may have responded to the different models by lowering prices for customers under Guided Choice and Maximum Choice and perhaps raising prices for Structured Choice customers. To the extent this occurred, it would reduce any effects of the difference in the ITA amount across models.

The difference in ITA structure appeared to influence customers' choices in two ways. First, the higher Structured Choice cap made some higher-cost programs more accessible. Therefore, although training programs did exist for most occupations that cost less than the cap under Guided Choice and Maximum Choice, the higher Structured Choice cap may have allowed customers to choose from a wider range of training programs.

Second, the different ITA structures could have influenced the number of training programs or certifications customers enrolled in. Local staff reported that some Structured

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[12] This worksheet was one of the tools developed to help implement the Structured Choice model. It is included in Appendix J.

Choice customers knew the cap on their potential award (or knew at least that it was higher than the cap under Guided Choice and Maximum Choice) and used this knowledge to request additional courses and certifications. Providers were often willing to add additional courses or certifications, especially in open-entry, open-exit programs, where the cost of providing additional courses or certifications was low. However, tempering this influence somewhat was the fact that customers assigned to Guided Choice and Maximum Choice could request additional training if they had not spent their entire ITA award on their first training program. Staff in some sites noted that some Guided Choice and Maximum Choice customers did come back for approval of a second training program.[13]

2. Provider Responses to the ITA Structure

Before the experiment, many One-Stop Center staff alleged that providers changed the prices of their training programs in response to changes in their ITA caps. Evidence collected from counselors, customers, and providers suggests that some providers—primarily proprietary schools—reacted to the experiment by "discounting" the prices of their training programs for customers under Guided Choice and Maximum Choice. Local staff and counselors reported that some schools—especially those teaching information technology programs—had experienced diminished overall demand for their services and therefore had strong motivation to increase the number of ITA holders in their programs.

Counselors and ITA managers in several sites also reported that some providers "raised" their prices by adding additional certifications or courses to existing programs for Structured Choice customers. These reports were more common in the four sites—Phoenix, Maricopa County, North Cook County, and Charlotte—that had a substantial number of proprietary training providers. However, we found little evidence that this practice was widespread. To some extent, this may be because other providers, such as community colleges and universities, do not have the same flexibility to customize their prices for individual customers and, because they do not rely on WIA customers as much, they have less incentive to do so.

C. ITA COUNSELING ACTIVITIES

The three ITA models varied in the counseling required, with customers under Structured Choice having the most counseling requirements and nearly all counseling being voluntary under Maximum Choice. Some structured counseling was also required under Guided Choice, but it was not as directive or intensive as under Structured Choice.

Next, we describe how counseling was implemented under Structured Choice and Guided Choice. We organize the discussion around four main counseling topics: (1) choosing the occupation for which to train, (2) researching training options, (3) comparing training options, and (4) assessing the feasibility of completing training. We end the section with a description of the extent that counseling took place under Maximum Choice.

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[13] Our understanding is that this was something that local sites would not typically allow absent the experiment.

1.   **Choice of Occupation**

The first decision customers typically had to make was which occupation to train for. Under Structured Choice, counselors were instructed to steer customers to well-paying occupations in high demand locally. Guided Choice had no specific requirements for choice of occupation, but counselors were encouraged to review customers' selections. Maximum Choice had no counseling requirements.

We found that under any model, counselors had only a small effect on such decision making; they reported influencing a customer's choice only rarely. The counseling process did not significantly alter the occupation choice of any customer we interviewed during the site visits or observed in a counseling session. This was true in all sites and did not seem to vary by the extent of occupational counseling that had occurred prior to random assignment. The limited influence of counseling on occupational choices was confirmed by information from the 15-month follow-up survey, which revealed almost no differences across models in the occupations customers selected for training (Chapter V).

The extent to which counselors directed Structured Choice customers toward high-return occupations also appears to be limited. For example, counselors frequently allowed Structured Choice customers laid off from the information technology industry to train for occupations in the same field, even though demand for such jobs was no longer high. The most direction to Structured Choice customers was given in Jacksonville—the site that before the experiment had used a model closest to Structured Choice. It required all Structured Choice customers to train for an occupation on the high-wage, high-demand list.

Limited Opportunities for Counseling. Counselors saw few opportunities to counsel ITA customers on occupation choice for three main reasons:

- *Many customers were reluctant to change occupations.* Counselors consistently reported that few expressed interest in a major career change. Many, especially dislocated workers, wished to return to work as soon as possible and thus gravitated to short-term training. Therefore, many customers wished to take one or two courses to brush up on existing skills or to learn an additional skill so that they could be more competitive in the labor market for their current occupation.

- *Many customers had already chosen an occupation by the time they were randomly assigned.* Counselors estimated that well over half had strong ideas about the occupation they would train for. We corroborated this estimate through our customer interviews during the site visits: of the 31 customers on whom we documented information about occupation choice (before random assignment would have happened), 29 stated that they had already chosen. Even in those sites that provided minimal occupation counseling before random assignment—Jacksonville, Atlanta, Northeast Georgia, and North Cook County—customers had clear ideas about their desired occupation. This suggests that most customers had made their choice before they initially came to the One-Stop Centers.

- *For the most part, customers' occupational choices were reasonable.* Counselors reported that many customers, especially dislocated workers, had done substantial research on their own and had based their choices on good labor market information.

Counselor Reluctance to Be Directive. Even when customers had not made choices before random assignment or when those choices were not based on good information, counselors were reluctant to push customers toward high-return occupations. We identified four main reasons for this.

- *Asking counselors to be more directive ran counter to the methods they had used throughout their careers at the One-Stop Centers.* Counseling had always been a collaborative process in which the counselors made suggestions but did not direct customers into occupations or training programs. In just one site (Jacksonville) did counselors direct customers only to those occupations on the high-wage, high-demand occupation list, and this requirement was imposed by the administrators of the One-Stop Centers and not left to counselor discretion.

- *Counselors believed strongly that respecting customers' choices was essential to their success.* They believed that, if they were directive, customers would be much less likely to complete the training program that was prescribed.

- *Counselors viewed the available labor market information as unreliable and therefore insufficient as a basis for requiring customers to change their occupation choices.* For example, they viewed information on the high-wage, high-demand occupation list as frequently out of date, inaccurate, and not specific enough to their particular local area.

- *Counselors felt well qualified to help customers reflect on important generic considerations when making occupation and training choices, but were not comfortable prescribing specific occupations to customers.* When dealing with customers with extensive experience in a highly specialized field (such as information technology), some counselors felt they were not knowledgeable enough about distinctions between available options to judge the customer's occupation choice. As discussed in Perez-Johnson et al. (2004), some counselors were relatively inexperienced, were not trained in vocational counseling, or lacked postsecondary degrees. Yet, counselors were sometimes advising customers with extensive experience and/or advanced degrees.

Use of High-Wage, High-Demand Occupation List. Jacksonville was the only site that required ITA customers to choose training for an occupation on this list. Interestingly, Jacksonville was also the only site to emphasize high-return training in its ITA policies before the experiment. Four other sites—Phoenix, Bridgeport, Charlotte, and Atlanta—stopped short of requiring that the chosen occupation be on the list, but they actively used the list to get Structured Choice customers to reconsider occupations. Three other sites—Maricopa County, North Cook County, and Northeast Georgia—used the list very little.

Use of Other Occupational Research Tools. Other tools developed to help Structured Choice and Guided Choice customers with occupational research were not consistently used. Our evidence suggests that this was not due so much to limitations in the tools, but rather to the fact that counselors were unwilling or unable to be directive to customers regarding their occupation choice. For example:

- *Guide to High-Return Training.* This guide was widely distributed, usually at the orientation. Counselors were required to discuss the guide with the customers in Structured Choice during the first counseling session. In practice, however, counselors did not review the guide with customers systematically under any model.

- *Occupational Research Worksheet.* This was not a required tool and was used in only three sites—Phoenix, Maricopa County, and Jacksonville.[14]

Guidance on Occupation Choice. While counselors reported having little effect on most customers' occupation choices, they reported helping some customers with their decisions. These included customers who, in the counselor's judgment, were making poor choices. For example, a Jacksonville counselor cautioned a customer that long-distance truck driving would not be suitable for a single parent. They also included a small number of customers, usually WIA adult workers, who had no idea what occupation to train for.

Counselors sometimes helped customers make their occupational choices more specific. For example, counselors in Phoenix and Maricopa County reported that they sometimes helped customers interested in the medical field decide between occupations such as phlebotomy versus surgical technician. Similarly, counselors sometimes suggested adding certifications to a customer's choice of occupation. For example, they might have suggested adding phlebotomy to a nursing assistant program.

2. Program Research

Counselors in all sites believed that researching training programs was extremely important. Consequently, they were rigorous in enforcing the experiment's research requirements for customers under Structured Choice and Guided Choice across all sites. Almost all counselors and customers interviewed for this study considered the program research forms developed for the experiment to be useful. Several counselors reported, and customer interviews confirmed, that the consideration of other providers opened the customers' eyes to a wider range of programs and led some customers to change their minds about a training program that they would have gone to without counseling.

Under Structured Choice and Guided Choice, all sites required customers to research at least two programs (Table III.1). Four sites required Guided Choice customers to research at least three; six sites required the same of Structured Choice customers. In all sites, however,

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[14] The "Guide to High-Return Training" and "Occupational Research Worksheet" tools are provided in Appendix J.

the research requirement for Structured Choice and Guided Choice customers was relaxed if the required number of programs on the ETP list did not exist within a reasonable commuting distance or if the alternatives were unsuitable for the customer.

Table III.1. Program Research Requirements

	Number of Programs That Customers Must Generally Consider	
	Structured Choice	Guided Choice
Phoenix	3	3
Maricopa County	3	3
Bridgeport	3	3
Jacksonville	2-3[a]	2-3[a]
Atlanta	3	2
Northeast Region	2	2
North Cook County	3	3
Charlotte	3	2

[a] Varied by counselor.

Sites differed in other requirements for how this research should be conducted. Three—Jacksonville, North Cook County, and Charlotte—allowed counselors substantial discretion to determine the scope of the research conducted by the customer. Customers in these sites could research programs in one or more occupations depending on the certainty of the customer's occupational preference and the number of potential training providers. The other sites, in contrast, typically required that customers research several programs in the same occupation, although exceptions were made to allow customers to consider programs in closely related occupations if warranted.

Sites also varied in the extent to which they required their customers to conduct program research through in-person visits to providers' training programs as opposed to through Internet research or telephone calls. Although counselors in all sites were enthusiastic about the efficacy of on-site program research and strongly encouraged such visits, only one site (Bridgeport) required that all customers under Structured Choice and Guided Choice visit at least one provider in person.

Just as many ITA customers appeared to come to the One-Stop Centers with well-formed occupation choices, many customers also came with a strong idea about the training program in which they wanted to enroll. These ideas were developed in three ways:

1. ***Reverse Referrals.*** Under a reverse referral, people who come to a school inquiring about training are informed about potential funding available from the local workforce investment board. School staff in one site sometimes even accompanied their potential students to the model-specific orientation sessions (although they were not permitted to attend the orientation itself).

2. ***Marketing.*** Some counselors believed that providers marketing directly to the unemployed had a significant effect on ITA customers' program choices. Several of the proprietary providers we interviewed confirmed that their schools advertised extensively through television or radio and considered these advertisements effective in bringing in customers.

3. ***Personal Recommendations.*** Many customers came to the One-Stop Center wanting to go to a school that a friend or relative had recommended.

Counselors considered mandatory program research especially important for customers who were "reverse referred" by providers. Because the referral can lead to customers obtaining public resources to pay for training that they would have otherwise paid for on their own, a reverse referral can produce a strong loyalty to a provider, independent of the program's suitability for the customer.

The extent of reverse referrals varied considerably across the sites. Counselors in three sites—Northeast Georgia, North Cook County, and Charlotte—stated that providers referred at least 20 percent of ITA holders. Counselors in the other sites suggested that the practice was relatively uncommon.

3. Comparing Training Options

After customers had completed program research, counselors were to work with them to compare the training programs researched.

a. Structured Choice

Under Structured Choice, counselors were asked to use the *Training Costs and Benefits Worksheet* to determine the net financial benefits from each program and direct customers to training determined to be high-return based on the calculations on the form. The qualitative evidence suggests that counselors did *not* use the results of this exercise to direct customers to a training program in any site. Indeed, at the beginning of the experiment, some counselors manipulated the inputs into the calculations so that the program the customer wanted had the highest "net benefit." For example, some placed a higher starting wage for a training program that the customer preferred, even if all the training programs were for the same occupation.

After counselors had been told not to manipulate the calculations in this way, our assessment was that many counselors used nonfinancial factors to override the net benefit results if they did not generate what the customer wanted. Consideration of nonfinancial factors was allowed under the Structured Choice requirements. However, counselors were expected to override the financial findings only when the nonfinancial factors were overwhelming. In some cases, counselors did perceive these factors as overwhelming but also reported that, in general, they did not hesitate to override the net benefit results for Structured Choice customers. The nonfinancial factors used to override the net benefit results included:

- *Location.* Counselors cited this as one of the most important factors in the customer's training decision.

- *Starting Dates.* Prompt starting time for a program was important because it could speed customers' reentry into the work force.

- *Program Duration.* Customers were often eager to return to work and therefore frequently strongly preferred shorter programs.

- *Instruction Characteristics.* These included class size and whether instruction was self-paced, computer-based, or delivered in lecture format.

- *Schedules.* Day versus evening schedules or how much time needed to be spent each day might have been important in ensuring that the program fit with the customer's family responsibilities.

Two main factors may explain why counselors did not direct Structured Choice customers to the programs with higher net benefits as indicated by the calculations on the *Training Costs and Benefits Worksheet*:

- *Counselors did not think the net benefit calculations indicated the best program for the customer.* It was difficult to estimate the wages given up during training. The available data on expected wages after training were not sensitive to differences in programs, such as the quality of instruction or whether the programs provided placement assistance. Moreover, counselors viewed nonfinancial factors as important in determining whether customers would complete training. Second, directing customers to specific programs was counter to the collaborative nature of the counseling they conducted.

- *Counselors felt that completing the Training Costs and Benefits Worksheet was not a useful exercise.* In practice, there might not be more than one training program to compare, or the available training programs are so similar that they yield the same net benefits.

The overall result of these practices was that counselors generally did not direct Structured Choice customers to high-return training, nor did they modify these customers' original ideas in significant ways. Moreover, they rarely denied training to Structured Choice customers.

b. Guided Choice

Counselors did not need to complete a *Training Costs and Benefits Worksheet* for Guided Choice customers or direct customers to a particular training program. Instead, they worked with customers on the *Training Options Comparison Form*, which asked customers open-ended questions about the programs. Counselors viewed this as a useful tool because it helped organize the information collected during program research.

4. Assessing the Feasibility of Completing Training

Under both Structured Choice and Guided Choice, after customers selected a program, counselors were required to discuss the feasibility of completing the chosen program with them. This included whether the ITA award and other available resources could cover the costs of training and whether the customer had enough household income to meet expected living expenses during the training period. The counseling requirements under Structured Choice and Guided Choice were similar. Customers were to be guided through the *Training Costs Form* to compare program costs and training resources, the *Income and Expenses Worksheet* to help them determine whether they had enough income to cover their household income while in training, and the *Training Budget Worksheet* to show how training costs would affect their household budgets.[15] As described in Section D, the only difference between the program approval process for Structured Choice and Guided Choice was that under Structured Choice, counselors could veto any training program they thought might not really be feasible.

Although, in general, the experimental tools were new to counselors, the review of customers' training decisions for financial feasibility was not. In most sites, counselors indicated that feasibility was a central component of ITA counseling before the experiment because sites were concerned about funding training that customers might not be able to complete.

WIA customers were also commonly required to explore feasibility considerations and the opportunity cost of participating in training before approval for training services. Such discussions would be more general, however, and focused on the overall feasibility of participating in training, and they would have taken place before random assignment and enrollment in the study. The experiment's feasibility activities were specifically focused on the customer's likelihood of completing the selected program.

Although counselors recognized that feasibility decisions were important, their opinions about the *Training Budget Worksheet* and *Income and Expenses Worksheet* for their Structured Choice and Guided Choice customers were varied. Some counselors viewed these forms favorably. They believed that many customers would have made casual decisions about budgetary matters without being forced to reconsider these decisions. Counselors saw the forms as helping customers think realistically about budget constraints and the need to choose a shorter training program, adjust expenses, or figure out alternative income sources during the training period. As one counselor in Atlanta remarked, "When they see the costs and their financial responsibilities laid out on paper, some will decide to pursue a shorter training program."

On the other hand, a few counselors thought that feasibility discussions were only moderately helpful because most customers had already considered feasibility in sufficient detail before random assignment, either on their own or through planning for training during core or intensive services. Some counselors also felt that the worksheets did not

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[15] These worksheets are provided in Appendix J.

accurately portray the factors in the feasibility decision because customers did not fill out the forms accurately, or they deliberately exaggerated income or understated expenses to ensure that the cash flow would be positive.

In general, customers accepted the feasibility exercises willingly. A few, however, felt that the need to furnish personal financial information for the Income and Expenses Worksheet was intrusive.

Counselors rarely used the results of these exercises to veto a Structured Choice customer's training choice. If the customer's choice did not look feasible given their other financial responsibilities, counselors might suggest to customers (but not insist) that they consider shorter-term training. Alternatively, they would prod customers to think of ways of making up a budget shortfall, either by cutting household expenses or by seeking other sources of income. Counselors noted that it was easy for Structured Choice customers to overcome shortages in the cash flow if they simply asserted that "my mother will help" or "I will refinance my mortgage." Counselors tended to accept these representations readily.

5. Counseling Under Maximum Choice

At the Maximum Choice orientation, counselors were to offer to help customers select a training program but to provide assistance only if the customer explicitly requested it. With some exceptions, counselors adhered to the requirements of this model. Observations of orientations and interviews with counselors suggest that counselors offered counseling to Maximum Choice customers and made it clear that it was not mandatory. All counselors acknowledged substantial differences in the way they handled customers in Maximum Choice versus those in Structured Choice and Guided Choice.

Some counselors did, however, provide a small amount of unstructured counseling to Maximum Choice customers, regardless of any request. For example, counselors in Charlotte, Phoenix, and Maricopa County—sites that stressed occupational counseling— admitted discussing the feasibility of the training with their Maximum Choice customers informally during the orientation sessions, without worksheets. Some counselors also brought up this issue informally when customers came in for their training vouchers. One factor that prevented counselors from counseling Maximum Choice customers was high caseloads; counselors felt they did not have time to provide additional counseling to these customers unless they explicitly requested it.

Other factors may have led Maximum Choice customers to conduct some research into training programs. For example, in Bridgeport, Phoenix, and Maricopa County, all training customers, regardless of the model to which they were assigned, were asked to submit (along with their program request) a written plan outlining the reasons for wanting to pursue their selected training program, evidence that the training was for an occupation or skill set in demand, and evidence that the customer had the skills to complete the program.[16] This

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[16] These were procedures that these sites used prior to implementing the ITA Experiment and wished to preserve during the study.

meant that all ITA study participants in these sites had to collect some information about the school and program they chose. In addition, some *providers* strongly promoted in-person visits before customers made their training decisions, and some even required that the customer visit in-person before enrolling.

Counselors in all sites reported that Maximum Choice customers used little counseling. Counselors reported that many Maximum Choice customers requested an ITA at the orientation or soon afterward, and the STS data corroborated this (Chapter IV). Counselors were nonetheless concerned about customers making their training decisions without professional guidance. A few counselors believed that the absence of significant contact with staff contributed to a higher rate of attrition among Maximum Choice customers because nobody was available to help with their personal problems or difficulties in making the choice. However, as we discuss in chapters IV and V, the quantitative data do not support this view. Maximum choice customers were, in fact, more likely to enroll in training (with support from any source) and to accept and receive an ITA.

D. FINAL PROGRAM APPROVAL

A major difference between Structured Choice and Guided Choice or Maximum Choice was that counselors could veto customers' program selections under Structured Choice but not under Guided Choice or Maximum Choice. Structured Choice customers' final program selections had to meet three requirements. They had to be (1) considered a high-return training option, (2) a program that the customer had a reasonable chance of completing with their available resources, and (3) on the ETP list.

In practice, our evidence suggests that counselors rarely, if ever, vetoed the programs chosen by Structured Choice customers for not meeting the first two requirements. This was not because the customers' choices always met the requirements; rather, counselors were reluctant to exercise their veto power. Counselors did not hesitate to override the results of the comparison of the financial returns of different programs based on nonfinancial factors or to accept customers' representations of their ability to complete a training program. In no site did we hear that managers and supervisors who reviewed the final program choice would ask counselors of Structured Choice customers to reconsider their approval.

Counselors reported that their reluctance to veto choices stemmed from their belief that the matching of training choices to customers' preferences was a critical determinant of the customers' success in achieving program completion and good employment outcomes. Counselors worked on making decisions collaboratively, building upon a good rapport established between counselors and customers. Thus, while counselors suggested alternatives to customers or might have pointed out factors that the customers should consider when pursuing training, they were uncomfortable being directive.

As counselors rarely vetoed customers' choices, they reported that program approval ended up looking very similar under all three models. Counselors noted that the biggest difference they saw between their roles in working with customers under Structured Choice and Guided Choice was that the former entailed more paperwork.

E. SITES' PREFERRED MODEL

Of the experiment's three models, most sites preferred Guided Choice. As mentioned earlier, counselors were uncomfortable being directive under Structured Choice. In addition, they viewed completing the Structured Choice required forms and worksheets as burdensome. On the other hand, they were also uncomfortable with not providing any counseling under Maximum Choice. Guided Choice embraced the two elements that counselors believed to be most important in counseling: (1) encouraging program research and (2) assessing the feasibility of completing the training program. Guided Choice was also most similar to the model that most sites had used before the experiment.

Managers and counselors were in a fair amount of agreement in their views about the ITA models. Perhaps this was because managers recognized the inherent difficulties in implementing a model that frontline staff disliked.

The sites' preferences on the model to managing ITAs are reflected in their choice of model after the experiment (Table III.2). None of the sites chose to adopt the exact specifications of any of the experiment's models. Most sites reverted to the general model they used before the experiment. However, Phoenix and Bridgeport implemented somewhat more structured counseling than they had before the experiment.

Table III.2. Models Adopted by Local Sites After the ITA Experiment Ended in June 2004

Site	Model Adopted After ITA Experiment	Major Modifications to Model Used Before ITA Experiment
Phoenix	Between Structured Choice and Guided Choice	*Training Costs and Benefits Worksheet* used for information only Modified *Occupational Research Form*
Maricopa County	Between Structured Choice and Guided Choice	*Training Costs and Benefits Worksheet* used for information only Modified *Occupational Research Form*
Bridgeport	Between Structured Choice and Guided Choice	Required customers to research two providers Counselors allowed to use Structured Choice if considered best for the customer
Jacksonville	Between Structured Choice and Guided Choice	Modified *Training Costs and Benefits Worksheet* Extensive counseling provided
Atlanta	Guided Choice	None
Northeast Region	Guided Choice	Counselors can use forms at their discretion for some customers
North Cook County	Guided Choice	Mandatory program research, including use of *Program Research Form*
Charlotte	Guided Choice	Counselors can use forms at their discretion for some customers

III: Implementation of the ITA Models

The major modifications to the experimental models the sites made were aimed at reducing paperwork they viewed as unnecessary. The counselors viewed some of the tools used during the experiment as useful for some customers, but not for all. For example, North Cook County retained the Program Research Form but made its use voluntary. In several sites, use of forms was left up to counselors' discretion. For example, counselors in Atlanta were encouraged to use the Training Budget Form if feasibility questions remained after an informal discussion of the topic. Use of the Training Costs and Benefits Worksheet was continued in three sites, but the counselors were not required to direct customers to the highest-return training program.

Most sites chose to return to the caps they had used before the experiment (Table III.3), including Maricopa County, Bridgeport, Atlanta, Northeast Georgia, North Cook County, and Charlotte. In most of these sites, the cap chosen after the experiment was also the one for Guided Choice and Maximum Choice during the experiment. Jacksonville returned to using the three-tier cap model it had used before the experiment, but used caps commensurate with those used during the experiment. The cap for the lowest-wage tier was the one for Guided Choice and Maximum Choice; the cap for the highest-wage tier was the one for Structured Choice. Only Phoenix raised its cap after the experiment, its rationale being that it wanted to accommodate customer demand for certain high-cost programs in popular fields such as information technology, nursing and other health care, automobile repair, refrigeration, and mechanical maintenance.

Table III.3. Caps Used by Sites Before, During, and After the Experiment

Site	Pre-experiment Caps	Caps Under Experiment	Post-experiment Caps
Phoenix	$3,000-$4,000 (depending on length)	$3,000 (A2 and A3) $8,000 (A1)	$6,000
Maricopa County	$3,500	$3,000 (A2 and A3) $8,000 (A1)	$3,500
Bridgeport	$3,000	$3,000 (A2 and A3) $7,000 (A1)	$3,000
Jacksonville	Tiered: $4,600-$8,900	$3,000 (A2 and A3) $6,000 (A1)	Tiered: $3,000-$6,000
Atlanta	$5,000 (first year)	$5,000 (A2 and A3) $8,000 (A1)	$5,000 (first year)
Northeast Region	$3,000 (first year)	$4,000 (A2 and A3) $8,000 (A1)	$3,000 (first year)
North Cook County	$3,000 (first year)	$3,000 (A2 and A3) $8,000 (A1)	$3,000 (first year)
Charlotte	$4,000	$4,000 (A2 and A3) $8,000 (A1)	$4,000

A1 = Structured Choice; A2 = Guided Choice; A3 = Maximum Choice.

CHAPTER IV

CUSTOMERS' EXPERIENCES OBTAINING AN ITA

The ITA models differed in both their requirements for obtaining an ITA and the potential ITA amount. While Structured Choice and Guided Choice customers were required to participate in further counseling after being determined eligible for WIA-funded training, Maximum Choice customers were not. And while Guided Choice and Maximum Choice customers faced the same cap on the ITA award, Structured Choice customers could potentially receive a higher ITA. These differences could affect customers' experiences and decisions in the process of obtaining an ITA.

This chapter examines how the models influenced intermediate customer outcomes—that is, outcomes related to customers' experiences prior to receiving an ITA. Drawing on data from both the STS and the 15-month follow-up survey of ITA customers, we examine the differences across models in the receipt of counseling and other services, the receipt of ITAs, customers' satisfaction with the process of obtaining an ITA, the value of the ITA awarded, the number of training programs chosen, and the cost of the program(s) chosen.

- *Maximum Choice customers chose to accept an ITA more often than customers assigned to Guided Choice or Structured Choice.*

- *Structured Choice customers chose more expensive training programs than Guided Choice and Maximum Choice ITA customers.*

- *The average ITA award was much higher under Structured Choice ($4,625) than under Maximum Choice ($2,888) and Guided Choice ($2,861).*

- *Customers across all three models were generally satisfied with the process for obtaining an ITA.*

A. CONDITIONS FOR PARTICIPATING IN ITA-FUNDED TRAINING

Not everyone who is found eligible for WIA-funded training actually receives an ITA—some customers decide not to train, and others participate in training but use other funds to pay for it. We envisioned three ways in which the ITA models could have influenced the likelihood that a customer fulfilled the necessary conditions to receive an ITA. First, the higher potential value of the ITA under Structured Choice increased the potential benefits of receiving an ITA and may have encouraged customers to fulfill their requirements. Second, the mandatory counseling under Structured Choice and Guided Choice could raise the costs to customers of receiving an ITA and discourage pursuit of ITAs. Third, under Structured Choice, counselors could have rejected customers' program choices, which might have discouraged pursuit of ITAs.

As soon as customers were found eligible for WIA-funded training, the sites sent their information to Mathematica for random assignment to one of the three models. After assignment, we entered the results into the evaluation's STS. The sites could then print customized letters describing the model to which the customer was assigned and citing its major features. The letters also invited customers to a model-specific ITA orientation where counselors discussed the procedures for the customer to follow to obtain an ITA.

1. Attending an ITA Orientation

A notable share of customers assigned to each model did not attend the ITA orientation (Table IV.1). Interviews with counselors suggested that the customers who dropped out right after random assignment commonly did so because they found a job or decided that training was not the right strategy for them at the time.

- **Comparing Guided Choice with Structured Choice.** About 69 percent of Structured Choice customers attended their ITA orientation, compared with 67 percent of Guided Choice customers—a difference that is not statistically significant. We interpreted this finding to suggest that any perceived benefits of a potentially higher ITA award under Structured Choice were offset by the perceived costs of additional counseling requirements.

- **Comparing Guided Choice with Maximum Choice.** An interesting finding was that the mere receipt of a letter notifying customers of their assignment to Maximum Choice increased their likelihood of attending the ITA orientation, relative to customers assigned to Guided Choice (or Structured Choice). About 74 percent of Maximum Choice customers attended the orientation compared to 67 percent of Guided Choice (and 69 percent of Structured Choice) customers. We interpreted this finding as an indication that the counseling requirements under Guided Choice (or Structured Choice) discouraged customers from pursuing an ITA.

Table IV.1. Percentage of All Customers Participating at Key Stages of the Process to Obtain an ITA

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Attended or Was Excused from an Orientation	69%	67%	74%	2	7***	-6***
Received Counseling After the Orientation	66	59	4	7***	-55***	62***
Received an ITA	59	58	66	1	7***	-6***
Sample Size	**2,644**	**2,649**	**2,627**			

Source: Study Tracking System, July 2004 extract.

Notes: The model means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity) and baseline characteristics, including marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Reported impacts may differ from the difference in reported means due to rounding.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

2. Participating in ITA Counseling

After attending an orientation, customers assigned to Structured Choice and Guided Choice were required to participate in a number of training-related counseling activities. Maximum Choice customers could participate in any of those activities if they chose, but they did not have to participate in order to obtain an ITA. Note, however, that *all* ITA customers received *some* counseling before being found eligible for ITA training and being randomly assigned to a model.

- **Comparing Guided Choice with Structured Choice.** Structured Choice customers were significantly more likely than Guided Choice customers to continue with ITA-related counseling after the orientation (Table IV.1). Overall, 66 percent of Structured Choice customers attended at least one counseling session after the orientation, compared with only 59 percent of Guided Choice customers (Table IV.1). About 3 percent of Structured Choice customers attended an orientation but then decided not to pursue the mandatory ITA-related counseling and thus dropped out of the process of receiving an ITA. In contrast, 8 percent of Guided Choice customers dropped out after attending orientation. This suggests, that during the Structured Choice orientations, counselors likely conveyed to these customers that they could receive a larger ITA award, and this potentially higher award offset some of the customers' concerns about the burden of additional counseling requirements.

- **Comparing Guided Choice with Maximum Choice.** When ITA-related counseling was voluntary, as under Maximum Choice, few customers took advantage of it. Overall, only 4 percent of Maximum Choice customers received any counseling after the ITA orientation, compared to 58 percent of Guided Choice customers (Table IV.1). The low rate is consistent with reports from local staff that many Maximum Choice customers (and other ITA customers) arrived at the ITA orientation with a strong sense of the training program they wanted to attend and submitted their requests for ITAs at that time.

3. Obtaining an ITA

Once Structured Choice and Guided Choice customers had completed their ITA counseling requirements, they could receive an ITA. Maximum Choice customers could receive an ITA as soon as they had attended an ITA orientation.

- **Comparing Guided Choice with Structured Choice.** Structured Choice and Guided Choice customers were equally likely to complete their counseling requirements—just under 60 percent of customers in both models received an ITA (Table IV.1). Although significantly more Structured Choice than Guided Choice customers began counseling, the fact that the two groups ultimately had similar ITA take-up rates suggests that more Structured Choice customers must have dropped out of the process *during* counseling. This could have occurred for three reasons. First, while ITA counseling was mandatory under both Structured Choice and Guided Choice, Structured Choice customers were required to complete more activities, some of which also took more effort. Second, it took longer on average to complete the counseling activities under Structured Choice, so there was more time for the customer to find a job before entering training. Third, it was possible for counselors to reject customers' choices under Structured Choice, and this could have discouraged Structured Choice customers from continuing. However, we think this third explanation is unlikely, since counselor reported rarely if ever rejecting customers' occupation or training choices.

- **Comparing Guided Choice with Maximum Choice.** Maximum Choice customers were 7 percentage points more likely than Guided Choice customers to receive an ITA—66 percent to 58 percent. This impact was due almost entirely to the difference in the rates at which the customers under these two models attended orientation. Nearly all Guided Choice customers who began counseling completed it and received an ITA. Therefore, it was the *expectation* of counseling, rather than the counseling itself, that led to the difference in the percentages of Guided Choice and Maximum Choice customers who received ITAs.

B. PARTICIPATION IN ITA COUNSELING AND RELATED SERVICES

As discussed above, the ITA model had a significant effect on the rate at which customers received any counseling after the orientation, with Structured Choice customers most likely and Maximum Choice customers least likely to participate in any counseling after the ITA orientation. This section discusses the amount of counseling received by those customers who received any counseling after the ITA orientation, participation in

assessments and workshops at the One-Stop Centers, and the length of time between when a customer was found eligible for training and when an ITA was received. As these outcomes are *conditional* on customer participation in counseling or receipt of an ITA, the differences cannot be interpreted as having been caused by the model. However, the findings are still informative.

1. Number of ITA Counseling Sessions

On average, Structured Choice and Guided Choice customers who received any counseling after their ITA orientations participated in two sessions with a counselor (Table IV.2). Just over one-third of Structured Choice and Guided Choice customers participated in only one counseling session, and another third participated in two sessions; the rest participated in three or more. Maximum Choice customers participated in an average of just over one session after orientation, with nearly three-fourths of Maximum Choice customers participating in only one.

Table IV.2. Number of Sessions Attended by Customers Who Attended Any Counseling After ITA Orientation

	Means			Conditional Differences		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Average	2.1	1.9	1.3	0.2	-0.6	0.8
Distribution						
1	37%	42%	74%	-5	32	-37
2	34	38	21	-4	-17	13
3	18	13	4	5	-9	14
4	7	5	0	2	-5	7
5	2	1	1	1	0	1
6 or more	2	1	0	1	-1	2
Sample Size	**1,734**	**1,558**	**100**			

Source: Study Tracking System, extract as of July 2004.

Note: Means were computed using only people who attended counseling after the orientation. Because these are nonrandom samples of the full groups, differences in means across models cannot be interpreted as the impact of one model as compared with another. Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics. Because of collinearity, regression adjustment could not be done. Reported conditional differences may differ from the difference in reported means due to rounding.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

However, customers had already received some counseling on the decision to participate in training and other topics before random assignment. Specifically, before being deemed eligible for training and randomly assigned to one of the ITA models, all customers received core and staff-assisted services offered at the One-Stop Centers, which could include several hours of counseling. The counseling sessions that occurred *after* the ITA orientation were therefore additional.

The 15-month follow-up survey asked customers how many times, *in total,* they had met with a counselor while participating in the WIA program. (Respondents were not asked to distinguish between sessions that occurred before and after random assignment or ITA orientation, since we judged this to be a difficult distinction for customers to make.) On average, Structured Choice and Guided Choice customers reported participating in a total of six sessions, and Maximum Choice customers reported an average of five. This difference was statistically significant. Customer reports of participation in WIA counseling suggest that the average ITA customer had participated in between 2 and 3 counseling sessions before random assignment.

2. Assessments and Workshops

To help customers decide on training and employment, One-Stop Centers offer a variety of assessments of aptitudes and interests, as well as workshops on topics such as job search, career planning, and basic skills. Customers can receive assessments and attend workshops at any time, but they typically do so before they are found eligible for ITA training. The 15-month follow-up survey asked ITA customers about their receipt of assessments and attendance at workshops, but did not ask them to distinguish between assessments and workshops that occurred before or after random assignment.

Assessment was not a required activity under any ITA model. However, Structured Choice customers were more likely than Guided Choice customers to receive an assessment. About 68 percent of Structured Choice customers received assessments, compared with 64 percent of Guided Choice customers (Table IV.3). We interpret this difference as indicating that Structured Choice customers were more likely to receive assessments *after* random assignment. As the assignment to models is random, we would not expect the receipt of assessments before random assignment to vary by model.

Structured Choice customers were significantly more likely than Guided Choice customers to receive an assessment in reading, occupational interests, English-language skills, and occupational aptitudes. While these assessments were not required as part of the Structured Choice counseling requirements, the more intensive counseling or the wider selection of available training programs that could be considered may have led customers to receive additional assessments.

We found no difference in overall assessment receipt between Guided Choice and Maximum Choice customers. The ITA models also had no impact on customer participation in workshops.

Table IV.3. Impacts on Receipt of Assessments and Attendance at Workshops

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Received an Assessment	68%	64%	66%	3*	1	2
Assessment Type						
English language	51%	47%	49%	4**	1	3
Reading	51	46	48	4**	1	3
Math	56	54	55	2	0	2
Occupational interests	54	46	48	7***	2	6***
Occupational aptitudes and interests	49	42	42	7***	0	7***
Computer skills	1	0	1	1*	1**	0
Typing and data entry	0	0	1	0	0	0
Writing and spelling	0	0	0	0	0	0
Other	1	0	1	1***	1**	0
Participated in a Workshop	42%	41%	41%	1	0	2
Workshop Type						
Resume writing	30%	27%	27%	3*	0	3*
Job search	32	31	29	1	-2	3*
Career planning	24	22	23	2	1	1
Job interviewing skills	4	3	3	0	0	0
Computer skills	1	2	1	-1	0	0
Money management	0	0	0	0	0	0
Opportunities for further education	1	1	0	0	0	0
Job networking	2	1	1	1	0	1*
Available assistance	0	0	0	0	0	0**
WIA resources	0	0	0	0	0	0
Stress management	0	0	0	0	0	0
Other	2	1	1	1*	0	0
Sample Size	**1,322**	**1,309**	**1,302**			

Source: 15-month follow-up survey.

Notes: The model means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics. Reported impacts may differ from the difference in reported means due to rounding.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

3. Timing of ITA Awards

It took Structured Choice customers longer than Guided Choice customers to obtain an ITA, and it took Guided Choice customers longer than Maximum Choice customers. As expected, there was no difference across models in the time between when the customer was determined eligible for training and random assignment—it was just under two weeks for all customers (Table IV.4). However, after random assignment, it took Structured Choice customers 8.5 weeks to obtain an ITA, compared with 7.2 weeks for Guided Choice customers and 6.4 weeks for Maximum Choice customers. In total, customers received an ITA about 8 to 10 weeks after they were found eligible for training.

Table IV.4. Number of Weeks Between Being Determined Eligible for Training and Receipt of an ITA, Among ITA Customers

	Means			Conditional Differences		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
WIA Training Eligibility to Random Assignment	1.8	1.8	1.9	0.0	0.1	-0.1
Random Assignment to ITA Approval	8.5	7.2	6.4	1.3***	-0.8***	2.1***
WIA Training Eligibility to ITA Approval	10.2	8.9	8.2	1.3***	-0.7**	2.0***
Sample Size	**1,569**	**1,541**	**1,725**			

Source: Study Tracking System, extract as of July 2004.

Notes: Means are computed using only people who received an ITA. Because these are nonrandom samples of the full groups, differences in means across models cannot be interpreted as the impact of one model as compared with another. The model means and conditional differences are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Reported conditional differences may differ from the difference in reported means due to rounding.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

C. NUMBER OF TRAINING PROGRAMS CONSIDERED

While we were designing the ITA experiment, WIA counseling staff frequently expressed the concern that, without prompting from local staff, ITA customers would not consider a variety of training programs. For this reason, Structured Choice and Guided Choice customers were required to conduct research on at least two training programs. To explore the extent to which the model influenced whether customers considered multiple programs, the 15-month follow-up survey asked customers how many training programs they had investigated in making their decision.

- **There were few differences between Structured Choice and Guided Choice customers in the number of programs considered.** On average, Structured Choice and Guided Choice customers considered between two and three. A few customers (5 percent) who dropped out of the process early on reported having considered no programs (Table IV.5).

- **On average, Maximum Choice customers also considered two programs, which suggests that staff concerns about customers not considering a variety of programs were unfounded.** However, Maximum Choice customers (who lacked explicit program research requirements) did consider fewer programs than Structured Choice and Guided Choice customers.

Table IV.5. Number of Training Programs Considered

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Average	2.4	2.3	2.2	0.0	-0.1*	0.2**
Distribution						
0	5%	5%	6%	0	1	-1
1	29	30	35	-2	5***	-7***
2	24	25	27	-1	2	-3
3	29	25	18	4**	-7***	10***
4	7	8	6	0	-2*	1
5 or more	6	7	7	-1	0	-1
Sample Size	**1,322**	**1,309**	**1,302**			

Source: 15-month follow-up survey.

Note: The model means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics. Reported impacts may differ from the difference in reported means due to rounding.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

D. SATISFACTION WITH ITA PROCESS AND INFORMATION AVAILABLE

One indicator of the success of an ITA model is the customers' satisfaction with the process of obtaining an ITA. The 15-month follow-up survey asked customers their level of satisfaction along three dimensions: (1) training options, (2) available information on training programs, and (3) counseling. In general, customers under all three models were satisfied with the process. Along each of the three dimensions, two-thirds to three-fourths of all customers indicated that they were either very satisfied or satisfied with the model (Table IV.6).

Table IV.6. Customer Satisfaction

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Satisfied with the Training Options	72%	71%	66%	0	-5***	6***
Satisfaction with Information on Training Programs						
Very satisfied	33	31	30	2	-1	3*
Satisfied	49	50	50	-1	1	-2
Dissatisfied	12	14	14	-2	0	-2
Very dissatisfied	4	4	5	0	1	-1
Don't know or refused	2	2	1	0	0	1
Satisfaction with Training Counseling						
Very satisfied	46	42	42	4**	-1	5**
Satisfied	36	39	39	-3*	0	-3
Dissatisfied	10	11	11	-1	0	-1
Very dissatisfied	6	6	7	0	1	0
Don't know or refused	1	1	1	0	0	0
Sample Size	**1,322**	**1,309**	**1,302**			

Source: 15-month follow-up survey.

Note: The model means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics. Reported impacts may differ from the difference in reported means due to rounding.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

The ITA model did, however, have some small impacts on satisfaction. While Structured Choice and Guided Choice customers were equally satisfied with the number of training options, Maximum Choice customers were 5 percentage points less likely than Guided Choice customers to be satisfied. Since Guided Choice and Maximum Choice customers chose from the same set of options (and had the same potential ITA award amount to help pay for their training), our interpretation of this finding is that local counselors increased Guided Choice customers' awareness of their options.

While Structured Choice and Guided Choice customers were equally satisfied with their training options and the available information on them, Structured Choice customers were more satisfied with the counseling they received on training. Thus, the more extensive counseling requirements under Structured Choice do not appear to have soured these customers on the process for obtaining an ITA. In fact, customers appear to have appreciated them. Somewhat surprisingly, Guided Choice and Maximum Choice customers were equally satisfied with counseling on average.

The reasons given for dissatisfaction with training options and counseling are presented in Figure IV.1. The reason given most frequently was that there were too few programs available. However, between 13 and 17 percent of survey respondents who were dissatisfied with the number of training options reported that their counselor had denied them the desired program. This is a puzzling finding, since counselors were asked not to deny choices made by Guided Choice and Maximum Choice customers. Even under Structured Choice, in which counselors could deny customers' choices, counselors reported that they did so rarely, if ever. Our explanation for this apparent inconsistency is that respondents may have referred to denial for an ITA that exceeded the cap as "a counselor denying their program choice." This would be consistent with the smaller proportion of Structured Choice customers giving this as a reason for dissatisfaction, although the differences across models are not statistically significant.

Figure IV.1. Reasons for Dissatisfaction with Training Program Options
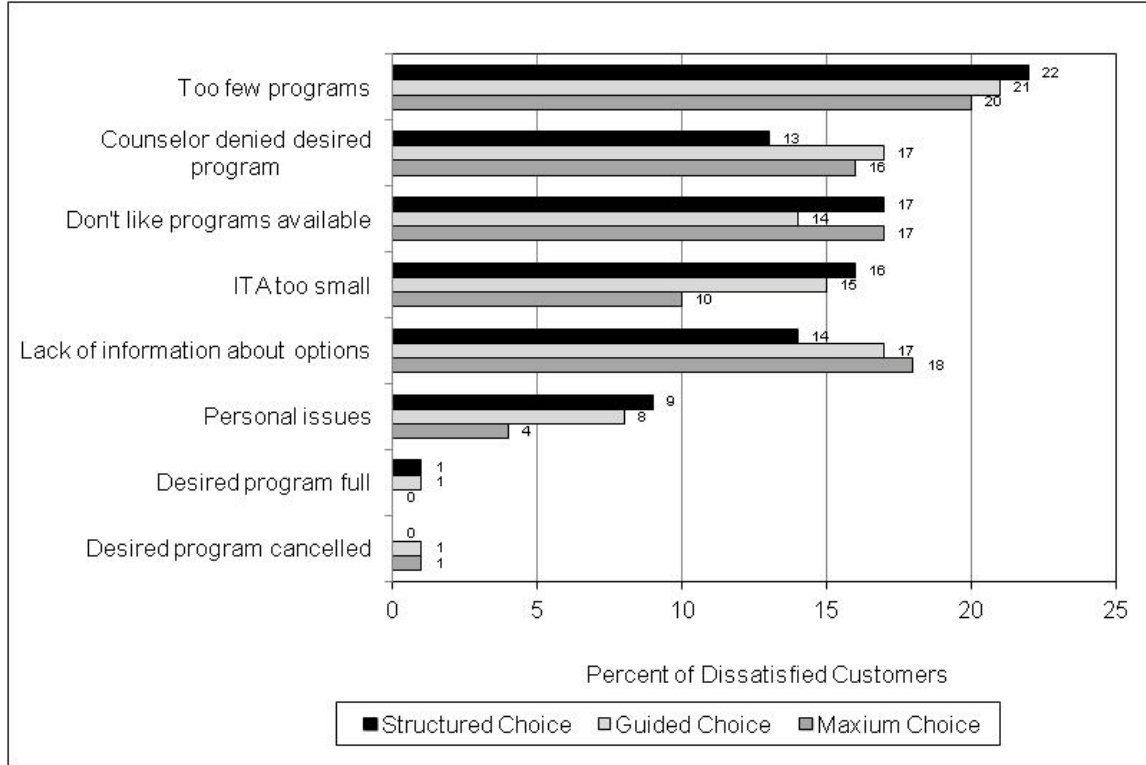
Source: 15-month follow-up survey.

Note: This figure shows the reasons given for dissatisfaction by those ITA customers who indicated that they were dissatisfied or very dissatisfied with their training options. Between 28 and 34 percent of ITA customers assigned to any model reported dissatisfaction with their training options (see Table IV.6).

Figure IV.2 presents the main reasons given for dissatisfaction with training counseling. The primary reason was that the customer "did not like the counselor." More than half the ITA customers who were dissatisfied with counseling cited this as a reason (Figure IV.2). Nearly one-fifth of customers were dissatisfied because there were "too many activities." However, Maximum Choice customers complained about the number of activities nearly as frequently as Guided Choice customers. This was probably because they were referring to activities conducted prior to being found eligible for an ITA.

Figure IV.2. Reasons for Dissatisfaction with Counseling
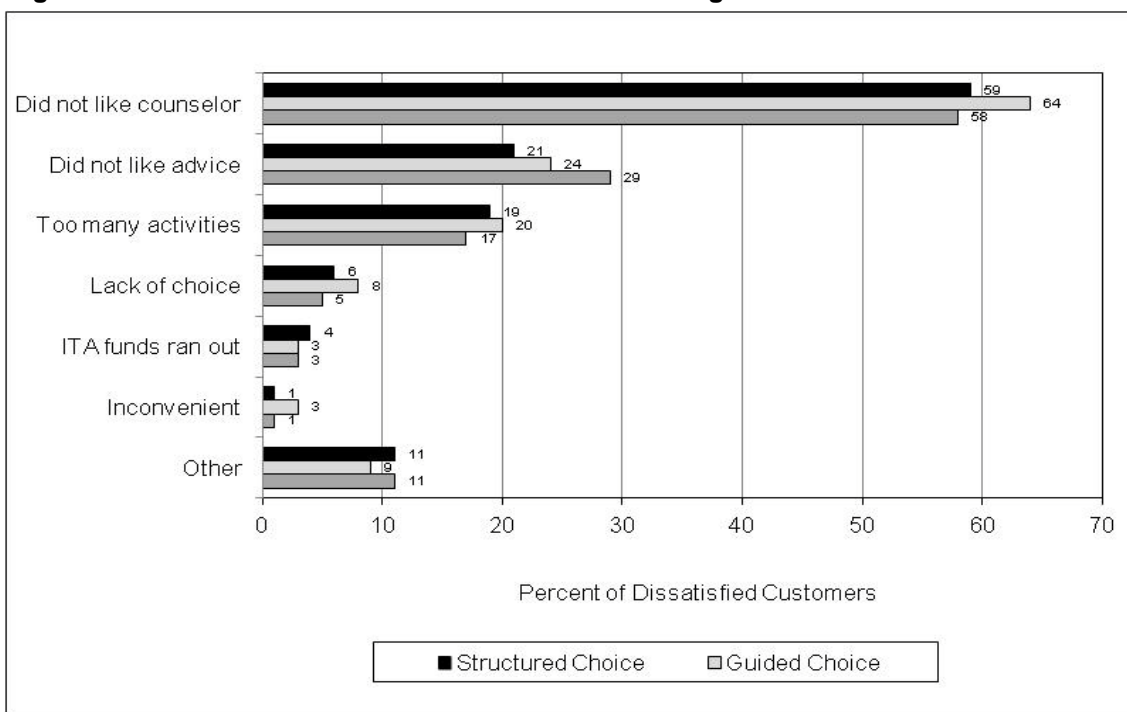
Source: 15-month follow-up survey.

Note: This figure shows the reasons given for dissatisfaction by those ITA customers who indicated that they were dissatisfied or very dissatisfied with ITA counseling. Only between 16 and 18 percent of ITA customers assigned to any model reported dissatisfaction with ITA counseling (see Table IV.6).

E. AMOUNT OF THE ITA AWARD

A key decision facing workforce investment agencies is how to allocate limited WIA training dollars. The model that sites used most frequently prior to the experiment, and the one used under Guided Choice and Maximum Choice, was to set a cap for the award and apply it uniformly to every customer. Customers can choose a training program that costs more than the cap, but they must find other funds to pay the difference. Our study sites set their ITA caps for Guided Choice and Maximum Choice at between $3,000 and $5,000.

Counselors were given more freedom to set the ITA amount for Structured Choice customers. While there was a cap under Structured Choice—between $7,000 and $8,000— this cap was not expected to be binding. Counselors were expected to award a higher ITA amount for customers choosing high-return training and to make a lower award, or no award, for those choosing lower-return options. In other words, counselors were expected to award ITAs of the same average value across all three models.

In practice, local counselors were unable to constrain spending under Structured Choice. Under this model, the average ITA award exceeded $4,600, or about 62 percent more than the average ITA award under Guided Choice (Table IV.7). Nearly half of the Structured Choice customers who were given an ITA received $5,000 or more. Structured

IV: Customers' Experiences Obtaining an ITA

Choice customers were also more likely to be given an ITA large enough to pay not just for direct training costs but also for training materials and supplies, such as books, uniforms, and tools. About 12 percent of the Structured Choice customers who received an ITA were awarded an amount equal to or exceeding their site's cap. On average, the value of ITAs awarded to Structured Choice customers were 61 percent of the cap.

Table IV.7. The Amount of the ITA Award

	Means			Conditional Differences		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Amount of ITA Award						
Average	$4,625	$2,861	$2,888	$1,764***	$27	$1,736***
Less than $1,000	3%	3%	3%	-1	0	-1
$1,000 to $1,999	8	11	9	-3***	-2	-1
$2,000 to $2,999	15	56	55	-41***	-1	-40***
$3,000 to $3,999	13	18	21	-5***	3*	-8***
$4,000 to $4,999	15	9	9	7***	0	6***
$5,000 or more	47	3	3	44***	0	44***
ITA Covered Materials and Supplies	8%	5%	7%	3***	2**	1
Amount of ITA Award Relative to Cap						
Average	61%	83%	83%	-21***	1	-22***
Less than 50%	34	12	10	23***	-1	24***
50% to 74%	37	11	11	27***	0	26***
75% to 99%	16	38	39	-21***	1	-23***
100%	11	40	40	-30***	0	-30***
More than 100%	1	0	0	1***	0	1***
Sample Size	**1,569**	**1,541**	**1,725**			

Source: Study Tracking System, extract as of July 2004.

Notes: Amount of ITA vouchers presented in 2002 dollars; when compared with the ITA cap, presented in current dollars. Means were computed using only people who received an ITA. Because these are nonrandom samples of the full groups, differences in means across models cannot be interpreted as the impact of one model as compared with another. The model means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Reported conditional differences may differ from the difference in reported means due to rounding.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

The average ITA awards of Guided Choice and Maximum Choice customers who received an award were almost identical, at about $2,900. Most awards given to Guided Choice and Maximum Choice customers were between $2,000 and $3,000. About 40 percent of Guided Choice and Maximum Choice customers who received an ITA were given an award equal to the cap. On average, the value of ITAs awarded to Guided Choice and Maximum Choice customers was 83 percent of the cap.

F.   COST OF THE ITA-FUNDED TRAINING PROGRAMS

In the next chapter we will discuss in greater depth the training programs chosen by customers. Here, we discuss the relative effects of the ITA models on the cost of the training programs *funded by ITAs*. While the value of the ITA might affect the training programs that customers choose, the cost of the program is not constrained by the value of the ITA. This is because customers could supplement the ITA with personal funds or funding from other sources.

Compared to Guided Choice customers, on average, Structured Choice customers chose significantly more costly training programs and were less likely to use supplemental funding. On average, they chose a training program that cost nearly $5,000—about $1,300 more than the average cost of the programs chosen by Guided Choice customers (Table IV.8). Also, on average, the ITA covered the entire cost of the training program for Structured Choice customers. In fact, in some cases, the Structured Choice ITA exceeded the cost of the program and also covered some of the required materials and supplies.

In contrast, Guided Choice and Maximum Choice customers chose programs that cost about the same—on average, $3,600 (Table IV.8). The ITA covered the entire program costs for only 3 to 4 percent of Guided Choice and Maximum Choice customers (not shown in table). However, the ITA did generally cover a large proportion of the total cost (about 90 percent).

Table IV.8. The Cost of the Training Program Chosen

	Means			Conditional Differences		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Cost of Training Program Chosen						
Average	$4,947	$3,608	$3,579	$1,340***	-$29	$1,368***
Less than $1,000	3%	4%	4%	-1	0	-1
$1,000 to $1,999	8	11	9	-3***	-2	-2*
$2,000 to $2,999	14	35	37	-21***	2	-23***
$3,000 to $3,999	13	20	22	-7***	3*	-9***
$4,000 to $4,999	14	17	16	-3*	-1	-2
$5,000 or more	48	14	12	34***	-2*	36***
Amount of ITA Award Relative to Cost of Training Program						
Average	100%	90%	91%	10***	1*	8***
Less than 50%	3	9	7	-5***	-2*	-3***
50% to 74%	7	21	21	-14***	0	-14***
75% to 100%	87	69	71	17***	1	16***
More than 100%	3	1	1	2***	0	2***
Sample Size	**1,569**	**1,541**	**1,725**			

Source: Study Tracking System, extract as of July 2004.

Notes: All dollar values are in 2002 dollars. Means computed using only people who received an ITA. Because these are nonrandom samples of the full groups, differences in means across models cannot be interpreted as the impact of one model as compared with another. The model means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Reported conditional differences may differ from the difference in reported means due to rounding.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

CHAPTER V

TRAINING OUTCOMES

I TAs are designed to provide customers with choice in the training programs funded by WIA. An important question is how does the model used to administer ITAs affect the choices customers make regarding training? The model could affect, for example, whether customers participate in any training, how training is funded, what type of program is selected, and whether customers successfully complete training.

- *The ITA model influenced customer participation in training.* Maximum Choice customers were more likely to enter into training than Guided Choice customers (71 percent) or Structured Choice customers (73 percent).

- *The ITA model also influenced how training was funded.* Maximum Choice customers were more likely than Guided Choice customers to fund training with ITAs. Structured Choice customers were less likely than either Guided Choice or Maximum Choice customers to use personal savings to pay for training.

- *The ITA model influenced the type of training provider chosen.* Structured Choice customers were more likely than Guided Choice customers to obtain training from a private vendor and less likely to attend a (public) community college.

- *The ITA models had little or no effect on training for specific occupations.* There were no significant differences across the models in the types of occupations that ITA customers chose to train for.

- *Among ITA customers who participated in training, Structured Choice customers were more likely than Guided Choice customers to complete a training program and to receive a certificate or degree.*

The specific characteristics of the ITA models that could influence customers' training selections included (1) the ITA award amount, and (2) the guidance given to customers during the counseling process. The larger ITA award amount available under the Structured Choice model might have given customers access to a wider selection of programs. At the same time, counselor guidance under Structured Choice was designed to steer customers toward high-return training (although implementation findings suggest that counselors were not particularly directive in such interactions). In contrast, Maximum Choice customers were not required to participate in counseling after the ITA orientation (and, in fact, participated in few sessions), which may have affected their training choices.

To examine impacts on training outcomes, we draw primarily on information reported by ITA customers in two surveys administered about 15 months and seven years after random assignment (see Appendix A). The surveys asked respondents for information on all training in which they had participated, not just ITA-funded training. The survey data also allow us to examine all sources of funding for training (not just ITAs), the characteristics of programs attended, and program completion rates.

When examining impacts on training outcomes, we focus on training that began within the first three years of the follow-up period. We selected this period because ITA customers had a three-year window in which to use their ITAs. Therefore, a three-year window after random assignment should capture training choices most directly influenced by the availability of an ITA. For completeness, Appendix E includes findings for selected training outcomes beyond the first three years of the follow-up period.

A.   WHETHER, WHEN, AND HOW LONG CUSTOMERS PARTICIPATED IN TRAINING

We begin our examination of training outcomes by considering the rate at which customers participated in training, the timing of first program entry, and the number of weeks customers spent in training during the first three years after random assignment. We then examine the characteristics of customers who did not participate in any training during this three-year window and their reported reasons for not participating in training.

1.   Participation in, Timing of, and Length of Training

Comparing Structured Choice with Guided Choice. The larger potential award amount and more structured counseling under Structured Choice did not affect the percentage of customers who participated in training, as compared to Guided Choice (Figure V.1). More than 70 percent of ITA customers assigned to either Structured Choice or Guided Choice participated in training at some point during the first three years after random assignment.

Figure V.1. Participation in Training
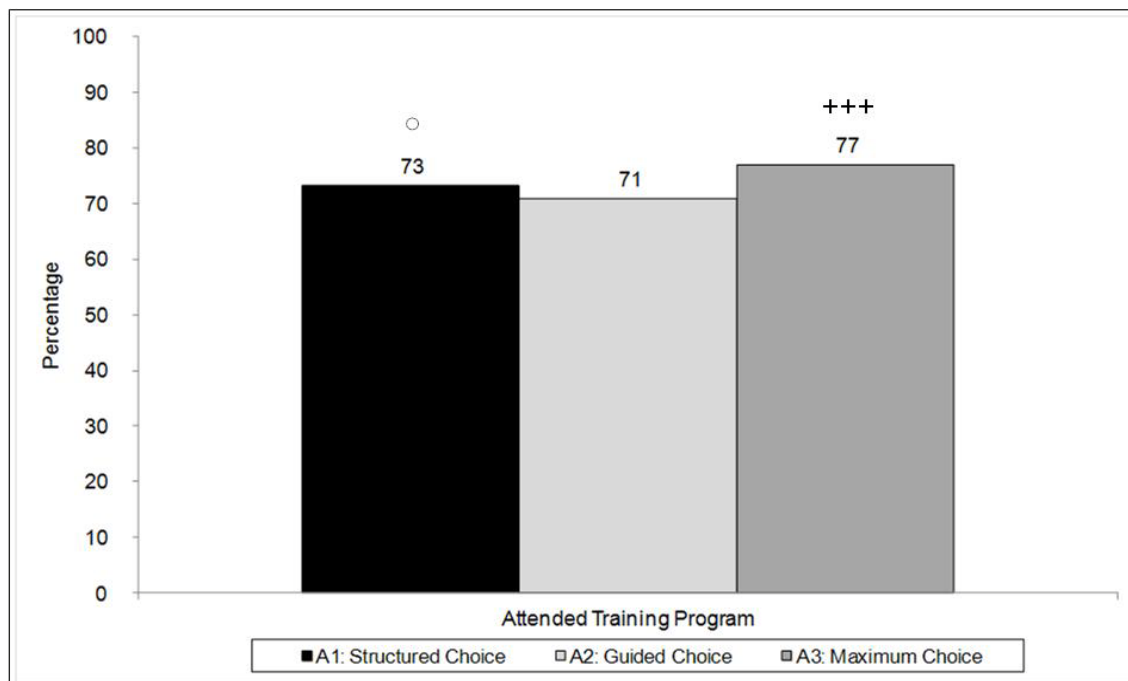
Among those who participated in training, Structured Choice customers entered their first training program two weeks after Guided Choice customers on average, but this difference was not statistically significant (Figure V.2).[17] This suggests that the additional counseling requirements under Structured Choice did not strongly influence the timing of program entrance when compared with Guided Choice.

Among customers who participated in training, Structured Choice customers spent about two weeks longer in training, on average, than Guided Choice customers, but this difference was not statistically significant (Figure V.2).[18]

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[17] These are conditional differences and not impact estimates, since those who did not participate in training do not have a time until program entry. Conditional differences cannot be interpreted as experimental impacts, since the approach could influence who chose to enter into training.

[18] Survey respondents were asked when they had started and stopped attending each of their training programs, not the intended duration of those programs. Further, our discussions with local counselors while the ITA experiment was being implemented indicate that there is not always a direct correspondence between program cost and overall duration or intensity. The type of training provider, the training occupation, and other factors also can influence the costs of training programs.

Figure V.2. Timing and Length of Training Among Those Who Trained

Sources: 15-month and long-term follow-up surveys (see Appendix Table E.2).

Notes: Sample sizes range from 1,056 to 1,092 by ITA model.

◊, ◊◊, ◊◊◊   Difference between A1 and A2 is significantly different from zero at the 0.10, 0.05, 0.01 level.
○,○○,○○○   Difference between A1 and A3 is significantly different from zero at the 0.10, 0.05, 0.01 level.
+, ++, +++   Difference between A3 and A2 is significantly different from zero at the 0.10, 0.05, 0.01 level.

Comparing Guided Choice with Maximum Choice. We find evidence that reducing the ITA counseling requirements had a positive impact on overall training rates. Within the first three years after random assignment, 77 percent of Maximum Choice customers participated in training, compared to 71 percent of Guided Choice customers (Figure V.1). (Maximum Choice customers were also more likely than Structured Choice customers to participate in training.)

Notably, at the time of the 15-month follow-up survey, we did *not* find significant differences in overall training rates for Maximum Choice and Guided Choice. (About two-thirds of customers in each model had participated in training at some point in the 15-month follow-up period.) This suggests that a larger share of Maximum Choice than Guided Choice customers enrolled in training 15 or more months after random assignment. Such delayed *first* entry into training for a notable share of Maximum Choice customers would be consistent with our current finding of no significant differences in the *average* timing of first entry into training between Guided Choice and Maximum Choice over the three-year follow-up period. At the end of the 15-month follow-up, Maximum Choice customers appeared to enter into training more quickly than Guided Choice customers. However, this statistically significant difference disappeared by the end of our three-year follow-up. This suggests that the late entry into training of some Maximum Choice customers offset the early entry into training of other Maximum Choice customers.

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We still find some evidence that reducing ITA counseling requirements can influence the timing of entry into training. Maximum Choice customers, on average, entered their first program three weeks earlier than Structured Choice customers, who were subject to more intensive counseling requirements (Figure V.2). This difference was only marginally significant, however.

Compared to Guided Choice, Maximum Choice did not influence the total number of weeks that customers spent in training over the three-year follow-up period (Figure V.2).[19] Since we also found no differences between Maximum Choice and Guided Choice in training program costs (Chapter IV), the number of training programs entered among those who participated in training (Section C of this chapter), and completion rates among those who participated in training (Section D of this chapter), we conclude that there is no evidence that customers across these two models selected programs with different durations.

2.   Characteristics of Customers

We expect the customers who decide to participate in training to differ from those who do not, and the differences might vary across models. In general, ITA customers who participated in any training during the three-year follow-up period had somewhat more favorable characteristics before random assignment than those who did not (Table V.1).

The Structured Choice model had the most differences between customers who did versus did not participate in training. Structured Choice customers who participated in training were more likely to already have a vocational or business degree or certificate at the time of random assignment (Table V.1). Male customers and nonminority customers in this model were also more likely than female and minority customers to participate in training (Table V.1). Within the Guided Choice and Maximum Choice models, there were fewer differences between customers who participated in training and those who did not. However, non-Hispanic black customers were less like to participate in training regardless of the ITA model to which they were assigned (Table V.1).

3.   Reasons for Not Participating in Training

Despite their eligibility for an ITA, about one-fourth of customers did not participate in any training program within the three-year period after random assignment. Staff interviews suggest that customers who dropped out of the ITA process soon after random assignment commonly did so because they had found a job (Perez-Johnson et al. 2004). In this section, we examine the reasons given by those customers who indicated that they had not participated in any training over the follow-up period. First we examine patterns in overall responses across all models, and then differences in the reasons cited by customers assigned to different models.

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[19] The differences presented are conditional differences, but we also found no (experimental) impacts on the number of weeks spent in training when we counted people who did not participate as having spent "0" weeks in training (Appendix Table E.1).

Table V.1. Baseline Characteristics of ITA Customers Who Participated and Did Not Participate in Training (Percentage Unless Otherwise Indicated)

Characteristics	Structured Choice		Guided Choice		Maximum Choice	
	Partici-pated	Did Not	Partici-pated	Did Not	Partici-pated	Did Not
Employment History						
Dislocated Worker	68	63	71	70	69	70
Adult Worker	32	37	29	30	31	30
Earnings in Year Before RA	$23,128	$16,422***	$21,539	$19,028	$20,911	$19,081
Receiving Public Assistance at Baseline	17	20	16	17	16	16
Employment						
Working at time of RA	12	10	9	6*	9	8
Worked within month prior to RA	23	18	20	18	19	18
Worked within one year prior to RA	64	66	68	64	69	71
Worked over one year prior to RA	14	16	12	18**	12	11
Duration of Last Job (months)	56	49	56	48	51	44
Educational Characteristics						
Highest Level of Education						
Less than high school degree	6	7	6	4	7	4
High school diploma or GED	57	60	59	65**	59	62
Associate's degree	8	7	9	9	8	9
Bachelor's degree	23	19	19	16	20	17
Graduate degree	6	7	7	5	6	8
Has a Vocational or Business Degree or Certificate	24	17***	25	28	24	25
Demographic Characteristics						
Age (years)	41	41	41	41	40	41
Female	52	60**	56	52	56	57
Married	43	41	41	40	42	36*
Has Children	53	57	55	53	55	51
Race/Ethnicity						
White non-Hispanic	45	37**	47	44	44	40
Black non-Hispanic	36	46***	36	45***	37	45**
Hispanic	10	9	9	5**	12	9
Other	9	9	8	7	7	5
Primary Language Is English	90	93	91	94	91	93
Sample Size	**812**	**293**	**773**	**308**	**819**	**259**

Sources: 15-month follow-up survey, long-term follow-up survey, and Study Tracking System extract as of 2004.

Note: Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

RA = random assignment.

V: Training Outcomes

Overall, customer responses to the two ITA follow-up surveys confirm staff reports that the primary reason WIA customers do not participate in training is that they either succeed in finding a job or need to look for a job (Table V.2).[20] Across the three models, 35 to 40 percent of customers cited these as reasons for not participating in any training during the three-year follow-up period. The next-most-common reason for not participating, reported by 16 to 22 percent of customers, was financial (Table V.2). Other commonly cited reasons were "no available program," "no longer interested in training," and "personal."

Among those who did not participate in training, Structured Choice customers were significantly less likely than Maximum Choice customers to cite "financial reasons" or "insufficient funding" as reasons (Table V.2). This is consistent with the potentially higher ITA awards available to customers under the Structured Choice model. However, there was no statistically significant difference in the proportion of customers assigned to Structured Choice and Guided Choice who cited financial reasons for not participating in training. This suggests that the ITA counseling required under these two models may have helped customers align their financial resources and costs of training.

The different levels of effort required from counseling interactions across the ITA models could have led to differences in the reasons customers cited for not participating in training. Differences could show up in reports of problems with counseling, no longer being interested in training, or deciding that training is not worthwhile. Counseling requirements under Structured Choice and Guided Choice could have decreased training participation because they required additional effort, or increased it if counselors encouraged customers to persevere or helped them identify worthwhile opportunities. Overall, we find limited evidence that the different ITA counseling requirements influenced the reasons customers did not participate in training. Across the models, we found no significant differences in the proportion of customers citing problems with counselors or deciding that training was not worthwhile as a reason for not participating (Table V.2). Structured Choice customers were nevertheless more likely to report no longer being interested in training, as compared to customers assigned to the either of the other two models.

One concern voiced by counselors about Maximum Choice was that without mandatory counseling, customers assigned to this model might not be able to accurately determine their likelihood of admission to particular programs and so might apply to programs inappropriate for their background and skills. However, we find no evidence of this in the reasons customers cited for not participating in training. There was no difference in the percentage of Maximum Choice customers who reported not participating because they did not get into a training program as compared to either Guided Choice or Structured Choice customers.

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[20] These differences are presented as conditional differences, but experimental impacts on participants' reason for not training follow similar patterns (Appendix Table E.3).

Table V.2. Reasons for Not Participating in Training Among Customers Who Did Not Train

Reason	Means			Conditional Differences		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Got a Job or Looking for a Job	35	40	33	-5	-8	2
Financial Reasons/ Insufficient Funding	16	18	22	-3	4	-6*
Not Interested in Training	12	6	5	6**	-2	8***
Personal Reasons	8	7	6	1	-1	2
No Available Programs	4	7	9	-2	3	-5*
Other	4	4	8	-0	3	-3
Problems with Counseling	5	3	4	2	0	2
Unaware of Program	4	4	4	0	-1	1
Did Not Get into a Program	3	3	5	-0	1	-2
No Suitable Program	3	2	2	0	-0	1
Timing Too Late/Too Long	2	3	2	-1	-2	1
Decided Training Not Worthwhile	2	0	2	2*	1	0
Sample Size	**232**	**240**	**209**			

Sources: 15-month follow-up survey and long-term follow-up survey.

Notes: Means were computed using only people who did not participate in any training. Because these are nonrandom samples of the full groups, differences in means across models cannot be interpreted as the impact of one model as compared with another. The model means and conditional differences are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

B. SOURCES OF FUNDING USED TO PAY FOR TRAINING

While all customers enrolled in the study were eligible for ITA funds, some turned to other sources to pay for their training, either in place of or in addition to their ITA.[21] This section examines what funding sources customers used to pay for training, including ITAs, personal savings, student loans, need-based financial aid such as Pell Grants, scholarships, Trade Adjustment Assistance, and other sources. [22]

Comparing Structured Choice with Guided Choice. Despite its larger potential ITA amount and more intensive counseling, Structured Choice did not affect the percentage of customers who received an ITA compared to Guided Choice. About three of every five customers assigned to either Structured Choice or Guided Choice (including those who did not participate in any training) reported receiving an ITA to pay for their training (Figure V.3). Of those participating in training, almost 80 percent of customers in both models used an ITA to fund at least part of it (Appendix Table E.5).

How the larger potential ITA award for Structured Choice customers would influence the use of non-ITA funding sources was unclear. The larger potential ITA award could have two separate effects on the training costs faced by a consumer. First, it could make more expensive programs more affordable and lead Structured Choice customers to choose higher-cost programs. At the same time, it could cover a greater portion of the costs for any given training program, thus decreasing the need for other sources of funding.

As we discussed in Chapter IV, Structured Choice customers did in fact choose more expensive programs. From the survey data, we find evidence that the higher costs of these programs were more than offset for Structured Choice consumers by their larger ITA awards. Specifically, Structured Choice lowered the need for customers to tap personal savings or use student loans to defray training costs as compared to customers assigned to Guided Choice (Figure V.3). There were no statistically significant impacts between Structured Choice and Guided Choice in the use of need-based financial aid or other funding sources to pay for training.

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[21] Since customers can pay for each of their trainings from multiple sources, we include all a person's reported sources across all programs attended. Correspondingly, categories can sum to more than 100 percent, since individual customers might report receiving funding from more than one source.

[22] Our analysis of sources of funding for training is based on survey reports. Self-reported rates of ITA receipt by approach are 2 to 3 percentage points lower than the estimates discussed in Chapter IV, which are based on a July 2004 extract from the evaluation's STS. These differences remain after we account for ITA-funded training that began after the July 2004 STS extract was taken (about 30 programs, or less than 1 percent of all ITA training episodes). Despite these differences, our impact estimates are largely consistent across the two measures of ITA receipt. Some customers may have underreported their receipt of ITAs, perhaps owing to confusion regarding their funding sources.

Figure V.3. Sources of Funding for Training
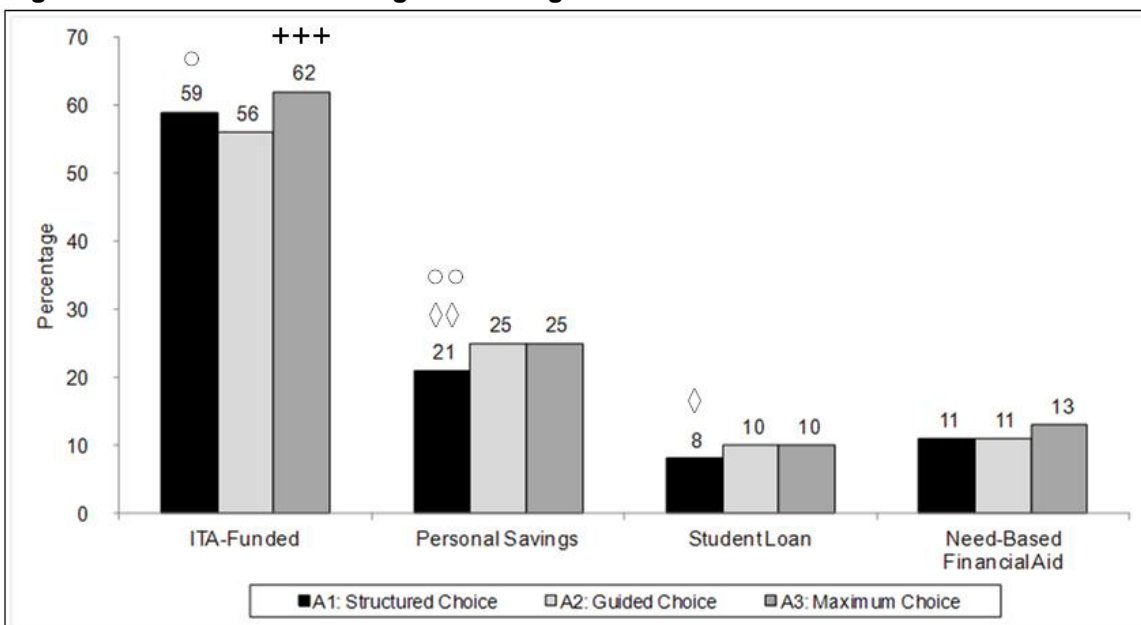
Sources: 15-month and long-term follow-up surveys (see Appendix Table E.4).

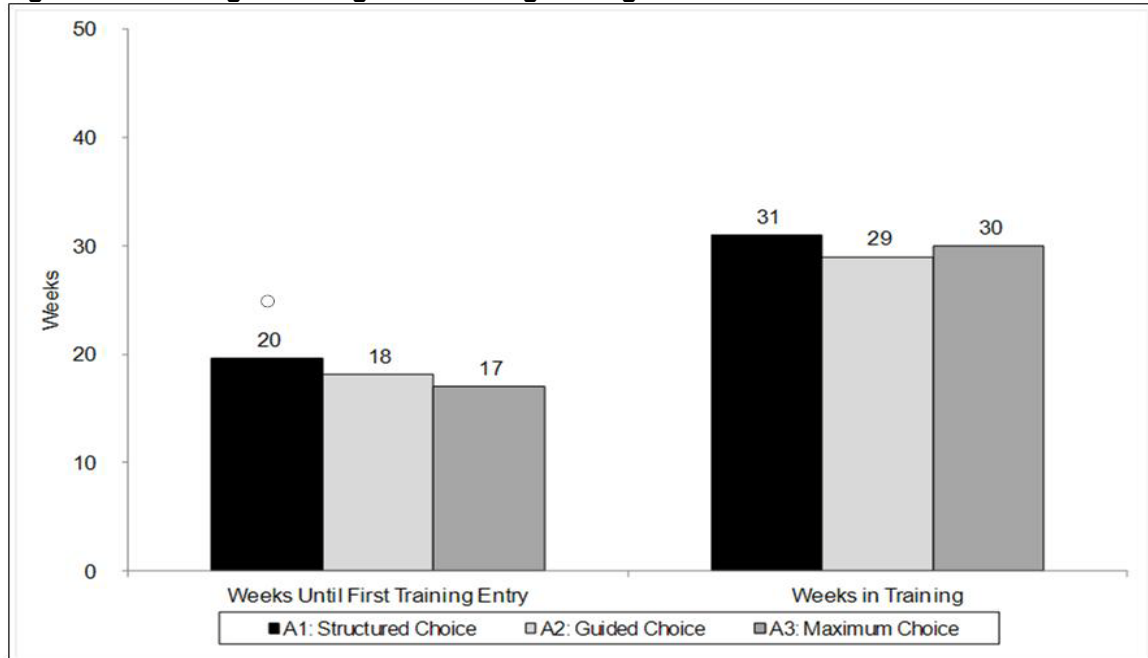Notes: Sample sizes range from 1,078 to 1,105 by ITA model.

◊, ◊◊, ◊◊◊   Difference between A1 and A2 is significantly different from zero at the 0.10, 0.05, 0.01 level.
○, ○○, ○○○   Difference between A1 and A3 is significantly different from zero at the 0.10, 0.05, 0.01 level.
+, ++, +++   Difference between A3 and A2 is significantly different from zero at the 0.10, 0.05, 0.01 level.

Notably, our findings regarding the reduced need to use personal savings or loans to pay for training for Structured Choice customers are consistent with customers' responses to questions on whether they would have attended a different program if more money had been available. Based on findings from the 15-month follow-up period, Structured Choice customers were less likely than Guided Choice (or Maximum Choice) customers to say that they would have attended a different program if more funds had been available (McConnell et al. 2006).

Comparing Maximum Choice with Guided Choice. As we discussed in Chapter IV, Maximum Choice customers were more likely than Guided Choice or Structured Choice customers to receive an ITA to pay for training. The survey data confirm this finding, with 62 percent of Maximum Choice customers reporting receipt of an ITA, compared with 56 to 59 percent of customers assigned to the other two models (Figure V.3). As discussed earlier, Maximum Choice customers also were the most likely, across all models, to participate in training (Figure V.1).

Further, we found no significant differences in the value of the ITA awards received or in the cost of ITA-funded programs chosen when comparing customers assigned to Guided Choice versus Maximum Choice. Therefore, it was uncertain whether there should be differences in their use of non-ITA funding sources to pay for training. The survey data show that Maximum Choice customers were no more likely than Guided Choice customers to use personal savings, student loans, or need-based financial aid (Figure V.3). We also

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found no differences in how Maximum Choice and Guided Choice customers financed their training when we examined other funding sources or restricted our analyses to customers who participated in training (Appendix Tables F.4 and F.5).

Receipt of Other Financial Assistance from One-Stop Centers. In addition to ITAs, customers in all three models could obtain assistance from the One-Stop Centers for training-related expenses other than tuition and fees. More than half of all customers reported receiving funding for tuition, fees, or books; about 15 percent reported receiving assistance for tools and 8 percent for clothing (McConnell et al. 2006).

Maximum Choice customers were more likely than customers assigned to the other two models to report having received any of the above types of financial assistance and, in particular, to have received funding for tuition, fees, and books. Because the additional funding was often attached to an ITA, it is not surprising that Maximum Choice customers, who were more likely to receive an ITA, were also more likely to have received additional assistance. There were few differences across models in the percentage of customers who received any of the specific types of additional assistance we examined.

C. CHARACTERISTICS OF TRAINING PROGRAMS

The types of programs attended by customers may differ by model because of the differences in counseling by model. This section examines the types of programs customers participated in, including the type of providers, the number of programs attended, and the occupations for which customers trained.[23] The discussion focuses on differences among customers who participated in training. Analogous experimental impacts for the outcomes presented, which include customers that did not participate in training, are presented in (Appendix Table E.6).

1. Type of Training Provider

Comparing Structured Choice with Guided Choice. Among customers who participated in training, Structured Choice customers were more likely than those in either of the other two models to have received training from a private vendor (Figure V.4). Private vendors were the most common training providers for all models, and almost half the Structured Choice customers who participated in training received training from one, compared to 42 percent of Guided Choice customers (Figure V.4). The popularity of private vendors across models is consistent with staff reports that ITA customers were generally interested in shorter-term training. Relative to other types of training providers, private ones are more likely to offer shorter or open-entry/open-exit programs that can be started and completed more quickly.

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[23] Since customers can participate in multiple training programs, we include all a person's training when categorizing types of programs. Correspondingly, categories can sum to more than 100 percent, since a customer might participate in different types of training programs provided by different types of providers.

Figure V.4. Training Provider Type Among Those Who Trained
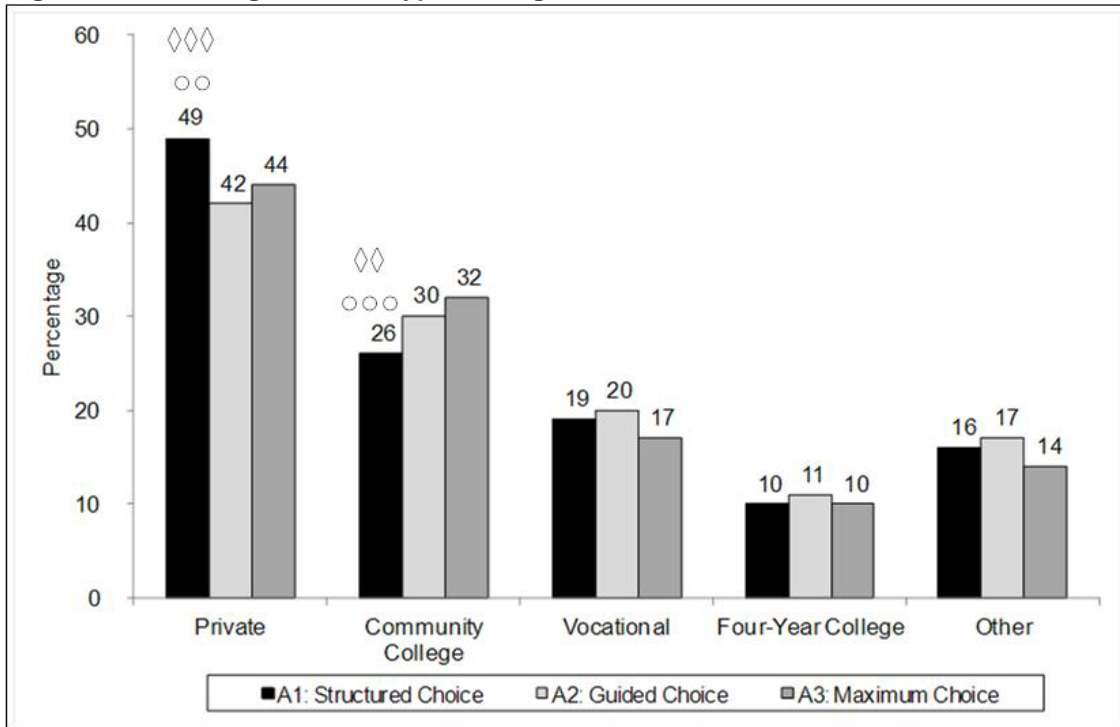
Sources: 15-month and long-term follow-up surveys (see Appendix Table E.7).

Notes: Sample sizes range from 773 to 819 by ITA model.

◊, ◊◊, ◊◊◊   Difference between A1 and A2 is significantly different from zero at the 0.10, 0.05, 0.01 level.
o, oo, ooo   Difference between A1 and A3 is significantly different from zero at the 0.10, 0.05, 0.01 level.
+, ++, +++   Difference between A3 and A2 is significantly different from zero at the 0.10, 0.05, 0.01 level.

Structured Choice customers were also less likely than Guided Choice (and Maximum Choice) customers to have received training from community colleges. About a quarter of Structured Choice customers participated in training at a community college, compared to 30 percent of Guided Choice customers (Figure V.4). Community colleges may be somewhat more visible than other types of providers. Therefore, this finding suggests that, in their interactions with customers, counselors may have increased customers' awareness of programs offered by other providers, especially for Structured Choice customers.

Overall, we found no differences in the proportions of Structured Choice and Guided Choice customers who received training from vocational training centers, four-year colleges, or other types of providers (Figure V.4).

Comparing Maximum Choice with Guided Choice. Among customers who participated in training, we found no statistically significant differences in the provider types chosen by Maximum Choice and Guided Choice customers (Figure V.4). Compared to Guided Choice customers, Maximum Choice customers were somewhat more likely to receive training from a private provider or a community college and somewhat less likely to attend a vocational training center, but these differences were not statistically significant.

2. Number of Training Programs and Reasons for Attending Training

Among customers who participated in training, there was no difference across models in the number of programs attended (Table V.3). As discussed in Chapter III, Guided Choice and Maximum Choice customers could go back to the One-Stop Center and request more training if they had not used their entire ITA amount on the first training program chosen. However, we find little evidence that this led those customers to participate in more programs.

We also found no differences across models in whether customers attended training for a specific occupation versus training of a more general nature (Table V.3). Across all three models, more than 90 percent of customers who participated in training reported training for a specific skill or occupation, and about 20 percent reported receiving general education, such as GED or English as a Second Language classes (Table V.3). [24]

Customers generally participated in training with the aim of moving to a new field or occupation rather than improving skills in their current occupation. In all three models, about two-thirds of customers who participated in training were preparing for a new occupation, with no significant differences in that rate across models.

Although counseling under Structured Choice was intended to steer customers to high-return training strategies, survey results indicate that this did not always translate into a change in occupation. In fact, compared to Maximum Choice customers, those in Structured Choice were more likely to report participating in training intended to improve their skills in their current occupation (Table V.3). [25]

3. Occupational Choices in Training

We observe almost no differences across the three ITA models in the occupations chosen by customers who participated in training (Table V.4). The most common areas customers chose were computer specialist, health care support, general education, and office and administrative support. [26] About 20 percent of customers in all three models were training as computer specialists, 20 percent for a job in health care support, 20 percent in general education, and 15 to 19 percent for a job in office and administrative support. Transportation was the fifth-most-common area, with about 10 percent of customers across all three models training for a job in that field (Table V.4).

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[24] Reporting training for general education purposes or for a specific skill were not mutually exclusive options in the survey.

[25] For each training program that the customer reported attending, the follow-up surveys asked, "Are/were you training mainly to prepare yourself for a new occupation or to improve your skills in your current occupation?"

[26] Customers who reported training for general education purposes were not asked to specify an occupation for their training, so they were treated as a separate category. The occupation categories for "Healthcare Support" and "Healthcare Practitioners & Technical" were combined because of evidence that similar, and sometimes the same, training programs were reported under either category.

Table V.3. Characteristics of Training Programs Attended by ITA Customers Who Trained

	Means			Conditional Differences		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Number of Training Programs Attended	1.4	1.4	1.4	0.0	0.0	-0.0
Attended Training for:						
General education	20	20	21	-0	1	-1
Occupation or specific skill	90	91	89	-1	-2	1
Attended Training Intended to:						
Prepare for new occupation	62	65	64	-3	-1	-1
Improve skills in current occupation	40	38	36	2	-2	4*
Sample Size	**812**	**773**	**819**			

Sources: 15-month follow-up survey and long-term follow-up survey.

Notes: People were considered to have received training for a characteristic if they reported that any of their trainings were for that characteristic. Means were computed using only people who participated in any training within the first 3 years of follow-up. Because these are nonrandom samples of the full groups, differences in means across approaches cannot be interpreted as the impact of one model as compared with another.

The model means and conditional differences are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics. Reported conditional differences may differ from the difference in reported means due to rounding.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Table V.4. Top Training Occupations for ITA Customers Who Participated in Training

	Means			Conditional Differences		
Top 20 Occupational Choices	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Computer & Mathematical	23	21	19	1	-2	3*
Healthcare Support	20	21	20	-1	-1	0
General Education	20	20	21	-0	1	-1
Office & Administrative Support	16	15	19	1	4**	-3*
Transportation & Material Moving	11	9	9	2*	0	2
Installation, Maintenance, Repair	4	4	5	-0	1	-1
Business & Financial Operations	5	4	4	0	-0	1
Management	3	4	3	-1	-1	0
Personal Care & Service	3	2	3	1	1	0
Education, Training & Library	2	2	3	0	0	-0
Arts, Design, Entertainment, Sports, Media	2	3	2	-1	-1	0
Architecture & Engineering	3	2	1	0	-1*	1**
Sales & Related	2	2	2	0	0	-0
Legal	2	2	1	1	-1	1**
Production	1	2	2	-1	0	-1*
Construction & Extraction	1	2	2	-1	-0	-0
Community & Social Services	1	2	1	-1	-1	-0
Food Preparation & Serving Related	1	1	0	-0	-0	0
Protective Service	1	0	1	1*	1*	-0
Life, Physical & Social Sciences	0	0	1	0	0	-0
Sample Size	**812**	**773**	**819**			

Sources: 15-month follow-up survey and long-term follow-up survey.

Notes: Customers were counted as training for a certain occupation of any of their reported trainings were for a given occupation. Means were computed using only people who participated in training within 3 years since random assignment. Because these are nonrandom samples of the full groups, differences in means across approaches cannot be interpreted as the impact of one model as compared with another.

The model means and conditional differences are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics. Reported conditional differences may differ from the difference in reported means due to rounding.

/ ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Despite counselors' responsibility to direct Structured Choice customers to high-return occupations, we do not see any differences in the specific occupations for which customers in the three models were training (Table V.4). A chi-squared test confirmed this, failing to reject the null hypothesis of no association between occupational choices and model.[27] The similarity in occupational choices across approaches is consistent with counselor reports that (1) customers often had strong, preconceived ideas about the occupation for which they planned to train; and (2) counselors found it challenging to steer customers in a different direction, even within Structured Choice. As discussed in Chapter III, counselors rarely rejected the training choices of Structured Choice customers, despite having the authority to do so.

The results also indicate that, despite counselors' fears regarding the types of programs Maximum Choice customers might select, these customers were not more likely to choose low-paying or high-turnover occupations. In fact, Maximum Choice customers chose training programs and occupations remarkably similar to those selected by customers assigned to the other ITA models.

D. TRAINING PROGRAM COMPLETION

Differences in counseling and ITA awards across the approaches influenced overall training rates, but they could also influence the completion of training programs. Because of their larger ITA awards, Structured Choice customers could have been under less financial pressure and thus better able to complete the programs in which they enrolled. The counseling requirements under Structured Choice and Guided Choice could have resulted in a better match between the customer's needs and the training programs selected or could help prepare customers for challenges they might encounter while in training, making program completion more likely. Next, we examine the impacts of the ITA models on program completion and on receipt of a certificate or degree.[28] We also examine the reasons those customers who stopped training did not complete their programs.[29]

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[27] A weighted chi-squared test comparing occupations chosen across approaches produced a p-value of 0.4345.

[28] Since customers can participate in multiple training programs, we consider them as having completed a program or having received a degree if they did so for at least one program that started within the initial three-year follow-up period.

[29] Since customers can participate in and not complete multiple training programs, we counted them as having reported a reason for not completing a program for each program they started within the initial three-year follow-up period and did not complete.

1. Completion of Programs

Structured Choice customers were more likely than Guided Choice customers to complete a training program or receive a degree or certificate (Figure V.5). Sixty-two percent of Structured Choice customers completed at least one training program that started within three years of random assignment, compared to 58 percent of Guided Choice customers. Fifty-seven percent of Structured Choice customers earned a certificate or degree upon completion of their program; for Guided Choice customers, the figure was 53 percent. This suggests that the more intensive counseling and/or the larger ITA awards helped make Structured Choice customers more successful in completing the programs they entered.

Counselors feared that because counseling after orientation was not mandatory for Maximum Choice customers, they might not select appropriate programs and thus would experience difficulty in completing training. Those fears were not borne out. In fact, compared to Guided Choice customers, Maximum Choice customers were more likely to complete a training program or receive a degree or certificate within three years after random assignment (Figure V.5).

Although Maximum Choice customers were more likely than Guided Choice customers to receive a degree or certificate overall, they were also more likely to participate in training. Therefore, it is still possible for Maximum Choice customers to have had higher rates of non-completion among those who trained. However, we still find higher rates of completion and certification or degree attainment for Maximum Choice relative to Guided Choice when we restrict our analysis to customers who participated in training during the three-year follow-up period (Appendix Table E.9). The differences in completion and attainment rates between Guided Choice and Maximum Choice are no longer statistically significant, however. This suggests that the differences in training completion and attainment between these two models are largely driven by the differences in training rates.

2. Reasons for Not Completing Training

About 13 percent of all customers—17 percent of those who participated in training—started a program that they did not complete. We find few differences across the three models in the reasons customers gave for not completing a training program (Table V.5). The most common reasons reported were getting a job or needing to look for a job (23 to 28 percent), financial reasons (16 to 18 percent), and personal reasons (14 to 20 percent).

We found only two statistically significant differences across approaches in reasons cited for not having completed training. The first was that Structured Choice customers were more likely than either Guided Choice or Maximum Choice customers to drop out of training because they were not performing well or were asked to leave the program (Table V.5). The second was that Structured Choice customers were less likely than Maximum Choice customers to leave for personal reasons. The first difference suggests that Structured Choice customers may have been slightly more likely to enroll in training

Figure V.5. Completion of Training Programs
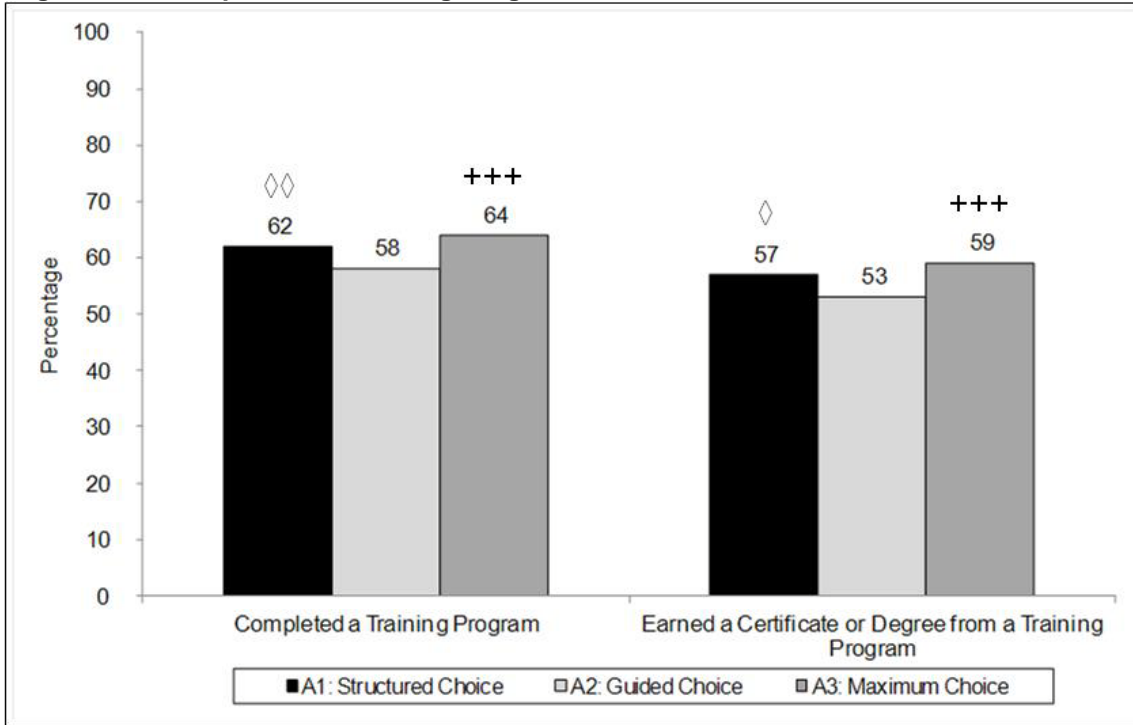
Sources: 15-month and long-term follow-up surveys (see Appendix Table E.8).

Notes: Sample sizes range from 1,078 to 1,105 by ITA model.

◊, ◊◊, ◊◊◊   Difference between A1 and A2 is significantly different from zero at the 0.10, 0.05, 0.01 level.
○, ○○, ○○○   Difference between A1 and A3 is significantly different from zero at the 0.10, 0.05, 0.01 level.
+, ++, +++   Difference between A3 and A2 is significantly different from zero at the 0.10, 0.05, 0.01 level.

Table V.5. Reasons for Not Completing Training for ITA Customers Who Began a Training Program They Did Not Complete

Reasons[a]	Means			Conditional Differences		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Financial Reasons	16	18	18	-2	0	-3
Personal Reasons	14	20	20	-7	0	-7*
Was Not Performing Well, Was Expelled, or Was Asked to Leave Program	10	5	5	5*	0	5*
Didn't Like Program, Staff, or Students at Program	7	11	8	-4	-3	-1
School or Program Closed	4	5	6	-0	1	-1
Changed School, Course, or Program	4	4	3	-0	-1	0
Got a Job or Needed to Find a Job	27	23	28	4	5	-1
Other Reasons	21	20	18	1	-2	3
Sample Size	**157**	**179**	**175**			

Sources: 15-month follow-up survey and long-term follow-up survey.

Notes: Reasons for not completing a training program are counted for all people who did not complete any of their training programs. Means were computed using only people who began at least one training program within 3 years since random assignment that they did not complete. Because these are nonrandom samples of the full groups, differences in means across approaches cannot be interpreted as the impact of one model as compared with another.

The model means and conditional differences are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics. Reported conditional differences may differ from the difference in reported means due to rounding.

[a] Percentage citing each reason may sum to more than 100, because respondents could have failed to complete more than one training program.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

V: Training Outcomes

programs that were too difficult or too ambitious for them.[30] As discussed, we did not find much evidence that local counselors steered Structured Choice customers toward particular occupations or training programs. Hence, we do not believe this to be a counseling-driven difference. It is an intriguing finding nonetheless, since frontline staff anticipated completion challenges to be more likely under Maximum Choice than under Structured Choice. It suggests that local counselors may not have been particularly effective when assessing the challenges that Structured Choice customers might encounter in completing their more costly (and possibly more intensive) selected training programs, that counselors might have been insufficiently assertive when they had reservations about the soundness of these customers' training choices, or a combination of these scenarios.

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[30] This finding is also consistent with staff reports that training providers would rarely prevent customers from enrolling in programs that might not be suitable for them—for example, by denying admission.

CHAPTER VI

LABOR MARKET OUTCOMES

I TAs are intended to facilitate the training of customers for productive employment. By either teaching new skills or strengthening existing skills, training can increase the likelihood that customers find jobs and increase their earnings once employed. This chapter examines the impacts of the ITA models on a wide range of labor market outcomes, and whether and how these impacts changed during the follow-up period. It begins by discussing levels of labor market activity, including labor force participation rates, quarters worked, and hours worked. It then examines the characteristics of those jobs that ITA customers obtained, such as whether the jobs were in an occupation for which the customer had received training, whether they offered high wages, and whether they offered fringe benefits. Next, the chapter explores how impacts on employment and job quality translate into impacts on earnings. Supplemental tables are in Appendix F.

- *The ITA model did not affect the number of quarters that customers worked during the follow-up period.*

- *In the last two years of follow-up, Structured Choice customers were significantly more likely to be employed in the occupation for which they trained (32 percent) than Guided Choice customers (27 percent).*

- *Structured Choice customers spent more time employed in high-wage jobs than Guided Choice or Maximum Choice customers (24 versus 20 percent).* However, they were no more likely to be employed in jobs with other desirable characteristics, such as those offering fringe benefits.

- *Although there were no differences in how much customers worked, the higher wages of Structured Choice customers translated into higher earnings.* This was particularly true in the late follow-up period, when the quarterly earnings of Structured Choice customers were about $500 higher than those of Guided Choice customers.

This analysis focuses primarily on labor market outcomes drawn from long-term survey responses. One advantage of survey-based measures is that they include more types of employment than do measures based on administrative records from the state UI agencies, including self-employment, work in informal jobs, work in certain occupations not covered by UI (such as military jobs and many jobs in agriculture), and work with employers located in states other than the state at random assignment. Survey-based measures also offer much more detailed information on job characteristics, such as wages, fringe benefits, occupation, and timing of employment. For these reasons, we regard the survey-based findings as the primary ones and use the survey-based earnings estimates in the benchmark benefit-cost analysis in Chapter VIII. We explored the robustness of findings from our survey data by estimating impacts on employment and earnings using quarterly earnings based on administrative records. We discuss this analysis in the final section of this chapter and in Appendix J.

Throughout this chapter, we examine outcomes for (a) the full follow-up period (that is, from random assignment until the long-term survey interview), (b) the two years preceding the long-term survey interview, and (c) the balance of the follow-up period (that is, from random assignment until two years before the long-term survey interview). We regard (b) the final two years of the follow-up as our main outcome reference period because (1) it is most likely to capture meaningful differences in long-term employment outcomes associated with the ITA models; (2) it is less likely than longer or earlier reference periods to be affected by recall error; and (3) it excludes the early follow-up period, when labor market outcomes were most likely to be affected by participation in training.

In addition to these outcome reference periods, we examine quarterly employment and earnings timelines from random assignment. These timelines are useful for showing how outcome levels and model impacts change over time after receipt of an ITA. However, these timelines are able to provide information for all customers through only the first 22 quarters (5.5 years) following random assignment, because that is the shortest time customers had between random assignment and the long-term follow-up survey. The long-term survey took place 28 quarters (7 years) after random assignment on average, and ranged up to 34 quarters (8.5 years) after random assignment, depending on when customers enrolled in the study and when the long-term survey took place. Therefore, for most customers, the 22-quarter timelines do not include the most recent employment and earnings information, which is likely to be of the highest quality since it is less likely to be affected by recall bias.

A key finding based on these timelines is that levels of employment and earnings, as well as the associated impacts, reach a steady level within two years of random assignment and change little from that point forward. This pattern of stabilization further justifies our use of the final two years of the follow-up as the primary outcome reference period. The late follow-up period captures these "stabilized" outcome levels, and the period is defined in a consistent way for all customers, regardless of the timing of the long-term survey interview relative to random assignment.

A. LABOR FORCE PARTICIPATION AND EMPLOYMENT

By improving skill levels and job preparedness, ITAs could affect customers' willingness to seek employment and their ability to find it. However, we find that the ITA model did not affect how much customers worked during the follow-up period. Levels of labor force participation and employment were similar for customers in all three models throughout the follow-up period. At the time of the long-term follow-up survey, about 9 in 10 customers in all three models reported either being employed or looking for work (Figure VI.1).[31] Based on survey data that collected information on job start and stop dates, each group was employed for about three-fourths of the time between random assignment and the second follow-up survey, and averaged about 400 hours of work per quarter during this period (Figures VI.2 and VI.3).

The quarterly profile of employment presented in Figure VI.2 further supports the finding that the ITA model did not affect employment levels. In the first quarter of the follow-up period, the employment rates of all three groups were very low, as customers engaged in employment search and/or training activities. The employment rates for all three groups increase steadily over time, stabilizing around 80 percent about a year and a half after random assignment. For each of the 22 quarters following random assignment for which we have data for all customers, we make three comparisons of average employment rates: (1) Structured Choice customers compared to Guided Choice customers, (2) Structured Choice customers compared to Maximum Choice customers, and (3) Maximum Choice customers compared to Guided Choice customers. Only 3 of these 66 comparisons produce differences that are statistically significant at the 5 percent level (Figure VI.4).

B. CHARACTERISTICS OF EMPLOYMENT

The ITA models could have influenced the types of jobs in which customers found employment by influencing the occupations for which the customers trained, the skills they obtained, and their qualifications for jobs with high wages, fringe benefits, or other desirable characteristics. This section examines the extent to which ITA customers found employment in the occupation for which they trained, and the quality of customers' jobs in terms of their wages and benefits.

1. Occupational Choice

One of the central goals of ITAs is to provide customers with specific skills that can be applied in future employment. One measure of the suitability of the training received is whether customers find employment in the occupation in which they receive training. We

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[31] To improve the precision of the impact estimates, we report impacts that have been adjusted with multivariate regression methods that control for a set of baseline demographic and socioeconomic variables. Reported means for each group have also been regression adjusted. Findings from unadjusted t-tests are consistent with the results presented here (Appendix F).

Figure VI.1. Labor Force Participation Rates at the Time of Long-Term Follow-Up
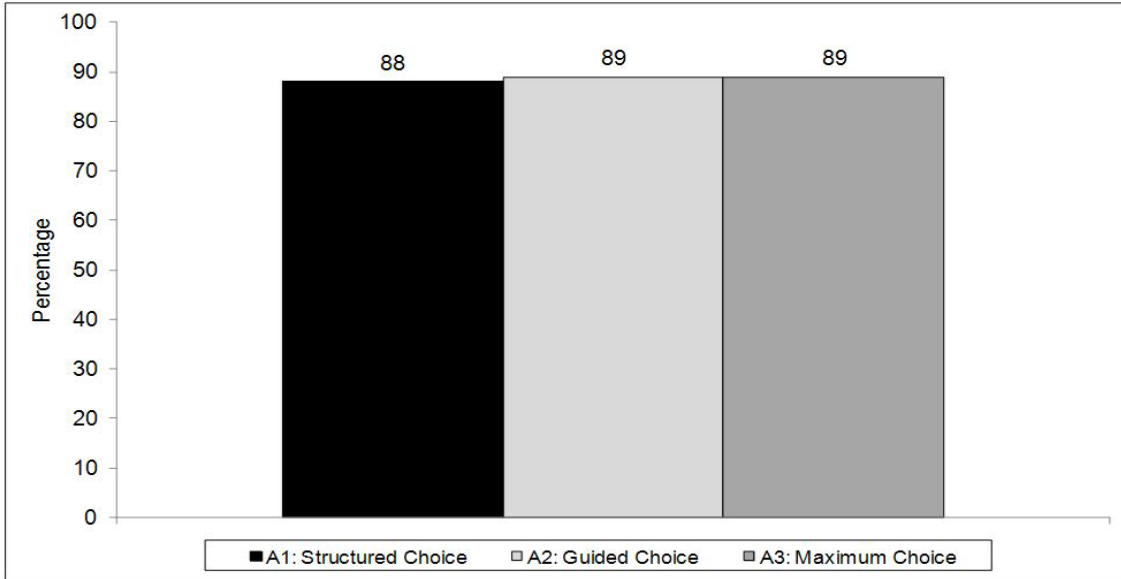
Source: Long-term follow-up survey (see Appendix Table F.2).

Notes: Sample sizes range from 1,076 to 1,104 by ITA model.

◊◊◊ / ◊◊ /◊   Difference between A1 and A2 is significantly different from zero at the 0.01/0.05/0.10 level.
○ ○ ○ / ○ ○ / ○   Difference between A1 and A3 is significantly different from zero at the 0.01/0.05/0.10 level.
+ + + / + + / +   Difference between A2 and A3 is significantly different from zero at the 0.01/0.05/0.10 level.

Figure VI.2. Percentage of Quarters Employed

Source: Long-term follow-up survey (see Appendix Table F.2).

Notes: Sample sizes range from 1,076 to 1,104 by ITA model.

◊◊◊ / ◊◊ /◊   Difference between A1 and A2 is significantly different from zero at the 0.01/0.05/0.10 level.
○ ○ ○ / ○ ○ / ○   Difference between A1 and A3 is significantly different from zero at the 0.01/0.05/0.10 level.
+ + + / + + / +   Difference between A2 and A3 is significantly different from zero at the 0.01/0.05/0.10 level.

VI: Labor Market Outcomes

Figure VI.3. Average Hours Worked per Quarter

Figure VI.4. Employment by Quarter Following Random Assignment

examined whether, during the follow-up period, ITA customers were ever employed in an occupation for which they received training (within 3 years after random assignment).

Over the full follow-up period, we find that both Structured Choice and Maximum Choice customers were significantly more likely than Guided Choice customers to be employed at some point in an occupation matching their training program, although the difference for Maximum Choice customers is only marginally significant (Figure VI.4). Interestingly, the pattern of impacts for this outcome is different at different points of the follow-up period. In the earlier portion, both Structured Choice and Maximum Choice customers were more likely than Guided Choice customers to be employed in an occupation matching a training program, with marginally significant positive impacts. Across all three models, rates of employment in an occupation matching a training program are higher in the earlier than in the later follow-up period. However, the falloff in this outcome is smaller for Structured Choice customers. In the last two years of follow-up, only Structured Choice customers were significantly more likely than Guided Choice customers to have been employed in an occupation matching a training program. About one-third of Structured Choice customers were employed in an occupation in which they received training in the late follow-up period, compared to about one-quarter of Guided Choice customers (Figure VI.5). This finding, which is statistically significant at the 1 percent level, is consistent with customers in the Structured Choice model receiving training that provides skills better matched to the jobs available in the chosen occupation. However, long-term employment rates in an occupation matching a training program are fairly low (between 27 and 32 percent) for all three groups. It may be that the benefits of training have less to do with learning specific skills for a narrowly defined occupation and more to do with learning general skills that can be transferred to a range of occupations.

In addition to looking at employment in an occupation matching a training program, it is useful to look at how customers' choices of training occupation compare to the occupations in which they find employment more broadly. Table VI.1 provides rates of training and rates of employment for the five most common occupations of training and the five most common of employment. Specifically, the top panel of this table shows what percentage of customers in each model received training in the five most common occupations of training, and what percentage found employment in these five. The bottom panel shows analogous numbers for the most common occupations of employment.

Customers in all three models were generally employed in similar occupations. One exception is that Structured Choice customers were significantly more likely to have been employed in the computer and mathematical occupation compared to employed customers in other approaches (Table VI.1). This finding may be important, since the computer and mathematical occupation was the most popular occupation of training for all three models, which indicates that it is a desirable field.

Although four of the five most common occupations of training are also among the five most common employment occupations, there are some important differences in the distributions of training and employment occupation. For example, while only 1 to 2 percent

Figure VI.5. Percentage of People Employed During the Follow-Up Period in an Occupation Matching Their Training Program

Sources: 15-month and long-term follow-up surveys (see Appendix Table F.3).

Notes: Sample sizes range from 768 to 830 by ITA model.

◊◊◊ / ◊◊ / ◊ Difference between A1 and A2 is significantly different from zero at the 0.01/0.05/0.10 level.
∘∘∘ / ∘∘ / ∘ Difference between A1 and A3 is significantly different from zero at the 0.01/0.05/0.10 level.
+++ / ++ / + Difference between A2 and A3 is significantly different from zero at the 0.01/0.05/0.10 level.

of customers trained in sales, nearly one in six were employed in sales. Similarly, employment in office and administrative support is much more common than training in that field.

2. Job Quality

By affecting customers' skill levels, the ITA model may have affected the types of jobs for which customers were qualified. We investigated this possibility by examining the percentage of quarters during the follow-up that customers spent employed in jobs that were stable, full-time, provided fringe benefits, or offered high wages. We define stable jobs as those with tenure greater than six months. We define high-wage jobs as those offering at least $20 per hour, which corresponds to approximately the 75th percentile in the sample wage distribution.

Most job characteristics were similar for customers in different ITA models, but Structured Choice customers spent the most time employed in high-wage jobs. Customers in each model spent about 70 percent of the quarters in the late follow-up period working in full-time jobs, and about 77 percent of quarters in stable jobs that they held for at least six months (Table VI.2). Customers also spent similar portions of the follow-up period in jobs offering benefits such as health insurance, paid leave, or retirement plans (Table VI.2). However, Structured Choice customers were employed in high-wage jobs in about one in four quarters during the final two years of the follow-up, compared to about one in five quarters for customers in the other two models, differences that are statistically significant at the 5 percent level (Table VI.2).

VI: Labor Market Outcomes

Table VI.1. Training Rates Within the First Three Years After Random Assignment and Employment Rates in the Final Two Years of the Follow-Up for the Most Common Occupations for Training and the Most Common Occupations of Employment

	Training Program			Employment		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice
Top 5 Training Occupations						
Computer & Mathematical	17	15	15	12 ◊◊◊	9	9
Health Care Support	14	15	15	12	13	12
Office & Administrative Support	11 ○○	10	14 ++	21	20	21
Transportation & Material Moving	8	6	7	11	10	10
Installation, Maintenance, Repair	3	3	4	4	4	4
Top 5 Employment Occupations						
Office & Administrative Support	11 ○○	10	14 ++	21	20	21
Sales & Related	1	1	2	12	12	11
Transportation & Material Moving	8	6	7	11	10	10
Computer & Mathematical	17	15	15	12 ◊◊◊	9	9
Health Care Support	14	15	15	12	13	12
Sample Size	**1,105**	**1,081**	**1,078**	**1,097**	**1,080**	**1,076**

Sources: 15-month follow-up survey and long-term follow-up survey.

Notes: Percentage of respondents in each two-digit Standard Occupational Classification. Numbers may sum to more than 100 because many customers have multiple jobs or training programs.

Note: The model means are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

◊◊◊ / ◊◊ / ◊ Difference between A1 and A2 is significantly different from zero at the 0.01/0.05/0.10 level.
○○○ / ○○ / ○ Difference between A1 and A3 is significantly different from zero at the 0.01/0.05/0.10 level.
+++ / ++ / + Difference between A2 and A3 is significantly different from zero at the 0.01/0.05/0.10 level.

Table VI.2. Impacts on Job Quality During the Final Two Years of Follow-Up

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Percentage of Quarters Employed in Job with the Following Characteristics						
High-wage job[a]	24	20	20	4***	1	3**
Full-time job[b]	71	69	70	2	1	1
Stable job[c]	78	76	77	1	1	0
Union	5	5	7	-1	2	-2**
Percentage of Quarters Employed in Job with the Following Benefits						
Health insurance	62	61	62	1	1	0
Paid leave	63	62	64	1	2	-0
Retirement benefits	57	55	56	2	1	1
Sample Size	**1,097**	**1,080**	**1,076**			

Source: Long-term follow-up survey.

Notes: The model means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics. Reported impacts may differ from the difference in reported means due to rounding.

[a] A high-wage job pays $20 or more an hour in 2002 dollars.
[b] A full-time job is one in which the customer works at least 35 hours per week.
[c] A stable job is one in which the customer is employed continuously for at least six months.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

That Structured Choice customers were more successful in finding employment in high-paying jobs may suggest that they acquired higher value or more durable skills in their training than did other customers. Higher rates of high-wage employment for this group may also be related to the finding discussed earlier that Structured Choice customers were more likely to be employed in their occupation matching a training program—among all customers, those employed in their field of training are employed in a high-wage job for about one-third of the final two years of the follow-up, compared to one-fifth of this period for other customers.[32]

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[32] The difference in employment in high-wage jobs by whether employed in the occupation of training, which should not be interpreted as a causal relationship or otherwise regarded as an experimental finding, is statistically significant at the 1 percent level.

3. Frequency and Reason for Transitions Between Jobs

One measure of the quality of the customer-job match can be the extent to which customers move from job to job over time. From the survey, we know the number of jobs held by each customer during the follow-up period. We also know whether any job separation was voluntary (i.e., the customer quit the job) or involuntary (i.e., the customer was laid off or fired). Customers across all three models held, on average, 1.4 jobs during the final two years of the follow-up (Table VI.3). This number includes customers who did not work at all during the follow-up period and hence had no jobs. Maximum Choice customers were more likely than Guided Choice customers to have had a voluntary separation during this period. No significant differences occurred between approaches in involuntary separations.

Table VI.3. Number of Jobs and Prevalence of Job Separations by Type in Last Two Years of Follow-Up

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Average Number of Jobs	1	1	1	-0	-0	-0
Ever Had a Voluntary Separation (%)	14	14	11	-0	-3*	2*
Ever Had an Involuntary Separation	27	29	28	-2	-1	-0
Sample Size	**1,097**	**1,080**	**1,076**			

Source: Long-term follow-up survey.

Notes: The model means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

C. EARNINGS

By teaching new skills or strengthening existing skills, training may provide customers opportunities to increase their earnings. Although we found no differences across approaches in how much customers worked, differences in job quality could have translated into differences in earnings for the ITA customers.

We find that the higher hourly wages of Structured Choice customers translated into average quarterly earnings that were higher than those of Guided Choice customers throughout the follow-up period, and particularly in the late follow-up period. During the final two years of the follow-up, Structured Choice customers earned about $7,200 per

quarter, over $500 more than Guided Choice customers (Figure VI.6). This difference is statistically significant at the 5 percent level. For the earlier portion of the follow-up, the difference in average earnings between Structured Choice and Guided Choice customers was about $400, also statistically significant at the 5 percent level. In both the early and the late follow-up period, Maximum Choice customers had average quarterly earnings that were not significantly different from the earnings of customers in either other model.

These patterns are supported by findings from quarterly earnings timelines, which show that customers in all three models experienced steady increases in average quarterly earnings from the very low earnings experienced during the early follow-up period, when customers were often engaged in training (Figure VI.7). However, average quarterly earnings increase more steeply for Structured Choice customers than for other customers, and plateau at a higher level. Average quarterly earnings for Structured Choice customers plateau at about $7,500 three years after random assignment, while earnings plateau at about $7,000 for other ITA customers. Differences in quarterly earnings between Structured Choice and Guided Choice customers are positive and statistically significant at the 5 percent level in 12 of the 14 quarters beginning 9 quarters after random assignment. The difference in quarterly earnings between Structured Choice and Maximum Choice customers is also statistically significant in two of these quarters.

D. COMPARISON OF SURVEY- AND ADMINISTRATIVE-BASED FINDINGS

We explored the robustness of the findings from our survey data by estimating impacts on employment and earnings using quarterly earnings records from the state UI agencies. The records are available for all 7,920 customers randomly assigned to one of the three models. The data are described in detail in Appendix A. The advantages of these administrative data are that they are available for the entire sample and are not subject to the recall error that is always a potential problem in surveys. The UI earnings records can also provide data on customers prior to random assignment.

However, we view the administrative data as less accurate than the survey data because they do not cover all jobs.[33] Workers excluded from UI earnings records include self-employed workers, railroad employees, workers in service for relatives, most agricultural labor, some domestic service workers, part-time employees of nonprofit organizations, and some workers who are casually employed "not in the course of the employer's business" (U.S. Department of Labor 2004). Workers in these sectors comprise about 10 percent of workers in the U.S. economy (Hotz and Scholz 2009; Kornfeld and Bloom, 1999). UI records also exclude workers whose employers (illegally) do not report their earnings to the UI agency. An audit study of Illinois employers' UI reports suggests that failure to report wages affects about one in seven workers, even in the formal sector, because of the prevalence of flexible staffing arrangements such as casual or part-time workers and independent contractors (Blakemore et al. 1996). There is reason to believe that type of

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[33] See Hotz and Scholz (2009) for a detailed discussion of the strengths and weaknesses of survey and UI data.

Figure VI.6. Average Quarterly Earnings During Follow-Up Period (Survey Data)
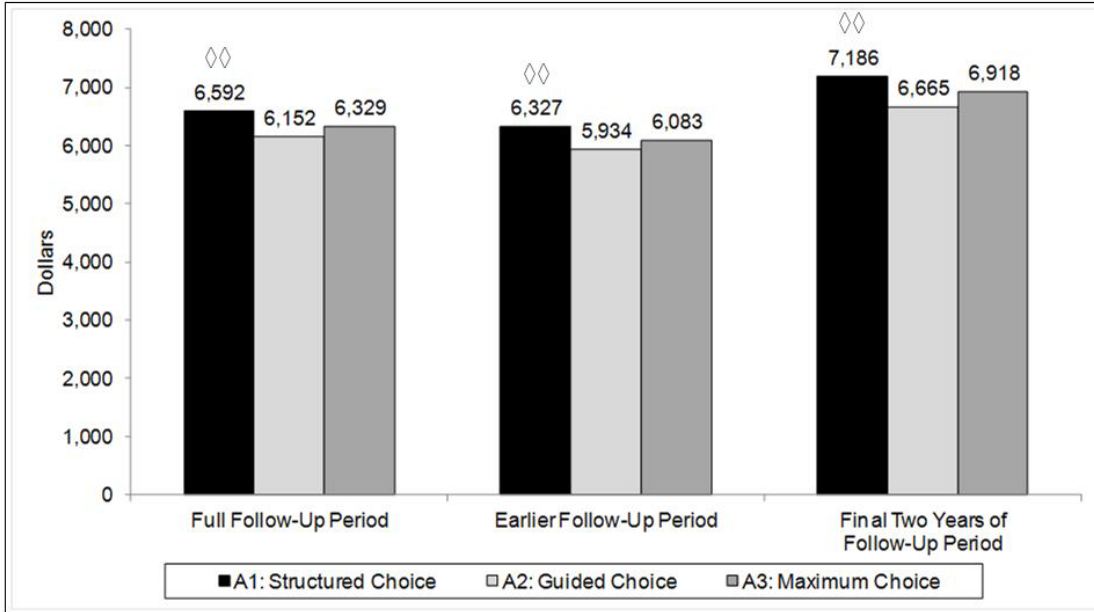
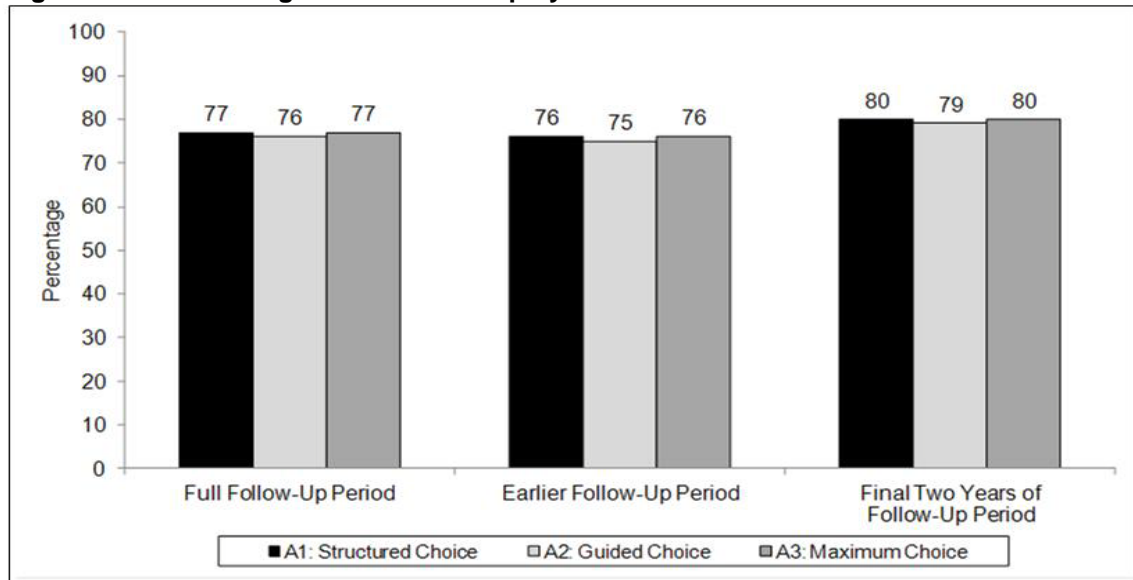Source: Long-term follow-up survey (see Appendix Table F.5).

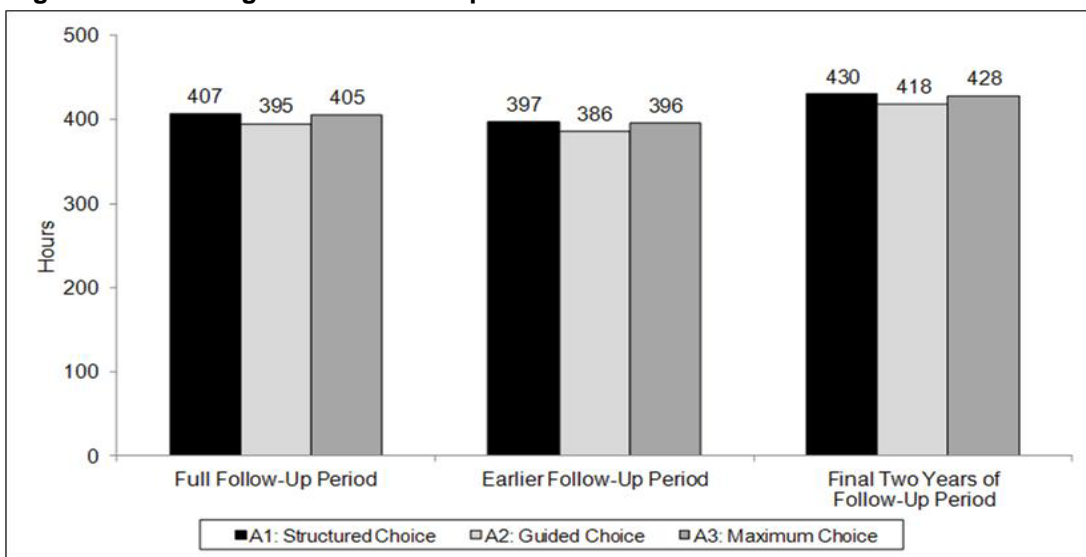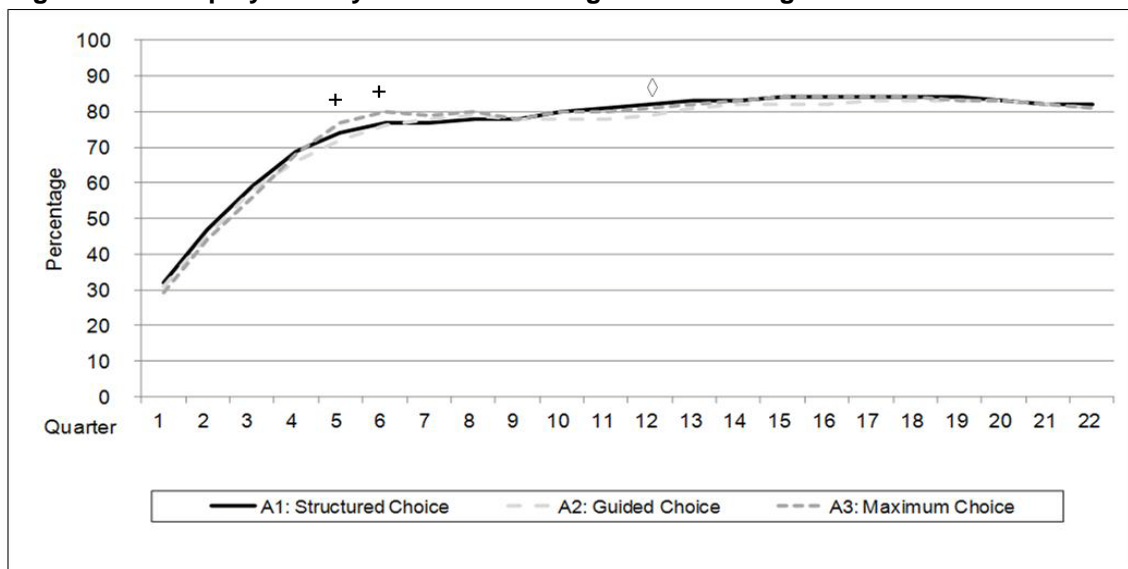Notes: Sample sizes range from 1,105 to 1,078 by ITA model.

◊◊◊ / ◊◊ / ◊   Difference between A1 and A2 is significantly different from zero at the 0.01/0.05/0.10 level.
○ ○ ○ / ○ ○ / ○   Difference between A1 and A3 is significantly different from zero at the 0.01/0.05/0.10 level.
+ + + / + + / +   Difference between A2 and A3 is significantly different from zero at the 0.01/0.05/0.10 level.

Figure VI.7. Earnings by Quarter Following Random Assignment (Survey Data)
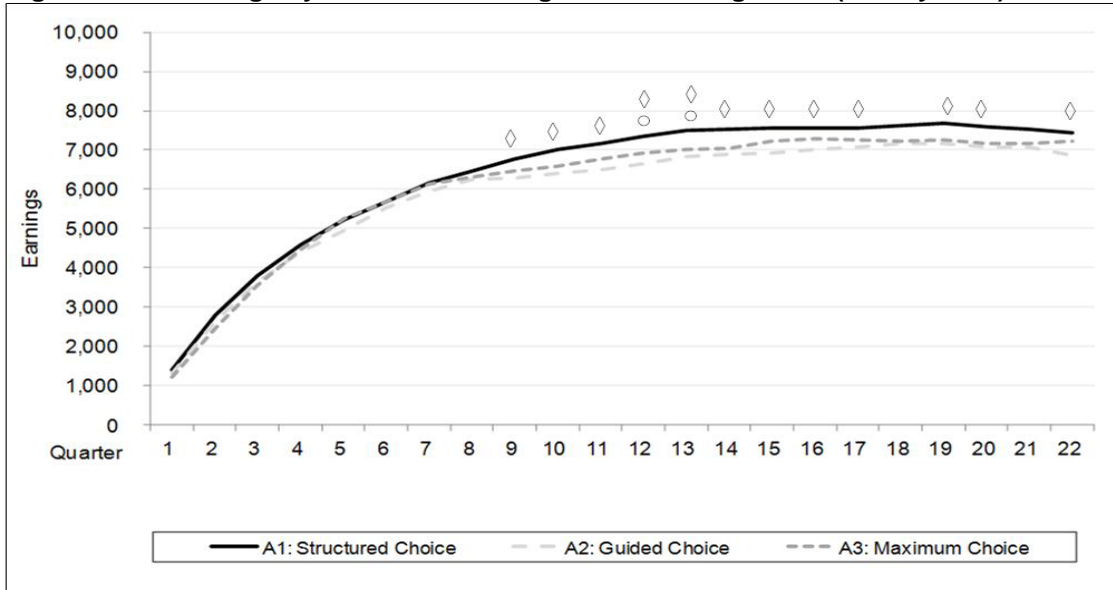
Sources: 15-month and long-term follow-up surveys (see Appendix Table F.4).

Notes: Sample sizes range from 1,076 to 1,097 by ITA model.

◊   Difference between A1 and A2 is significantly different from zero at the 0.05 level.
○   Difference between A1 and A3 is significantly different from zero at the 0.05 level.
+   Difference between A2 and A3 is significantly different from zero at the 0.05 level.

undercoverage may be increasing because flexible staffing arrangements have become much more common in recent years (Hotz & Scholz 2009; Houseman 1999).

UI records also exclude earnings from customers' out-of-state jobs, as well as earnings from customers who moved to a different state at some point during the follow-up period. Finally, UI records rely on the accuracy of reported social security numbers (SSNs); earnings will be excluded if there is a discrepancy in the SSN reported at program intake and the SSN reported to or by employers, or if there are problems in the matching process conducted by state UI agencies. Previous studies have suggested that inconsistently reported SSNs are an important problem when collecting wage records from state UI agencies (Schochet et al. 2003).

Based on the likelihood that UI data excludes a number of types of employment, we use the survey-based earnings estimates in the benchmark benefit-cost analysis in Chapter VIII and regard the survey-based findings as the primary ones.

Across all three models, both the employment rate and average earnings measured by the administrative data are substantially lower than the employment rate and earnings measured in the survey data. These differences in survey-based and UI-records-based earnings levels are similar in magnitude to those found in other studies that have examined data from both sources, including Job Corps, National JTPA, and various welfare-to-work demonstration programs (Schochet et al. 2003; Kornfeld and Bloom 1999; Cave 1995; Meckstroth et al. 2008).

Although the UI-based earnings are lower than the survey-based earnings for customers under all three models, the difference between the earnings reported on the two data sources is largest for Structured Choice customers (Figures VI.6, VI.8, and VI.9). For example, during calendar years 2008 and 2009 (the last two years for which UI data are available and a period that corresponds roughly to the "last two years of follow-up" for survey-based measures), the earnings for Structured Choice customers reported in the survey are $2,368 (49 percent) higher than the earnings for Structured Choice customers reported in the administrative data (Figures VI.6, VI.8, and VI.9). The survey-based earnings for Guided Choice customers are $1,952 (41 percent) higher than their administrative-data-based earnings. As a result, impact estimates are about $400 smaller in the analysis based on UI records data than in the survey-based analysis—during the 2008-2009 period, the difference in average quarterly earnings between Structured Choice and Guided Choice customers in the administrative data is about $100 and is not statistically significant, while the analogous difference for the late follow-up period based on survey data is about $500 and is statistically significant at the 5 percent level (Figures VI.6, VI.8, and VI.9).

The pattern of larger impacts in the survey-based analysis compared with the administrative-data-based analysis is similar in the quarterly earnings timelines. The pattern of the increasing difference in quarterly earnings between Structured Choice and Guided Choice customers is similar in both data sources—the impact becomes steadily more positive during the early follow-up period (Figures VI.7 and VI.10). However, about two years after random assignment this difference stabilizes at about $100 in the administrative data, whereas it stabilizes at about $500 in the survey data.

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Figure VI.8. Average Quarterly Earnings During Follow-Up Period (Administrative Data)
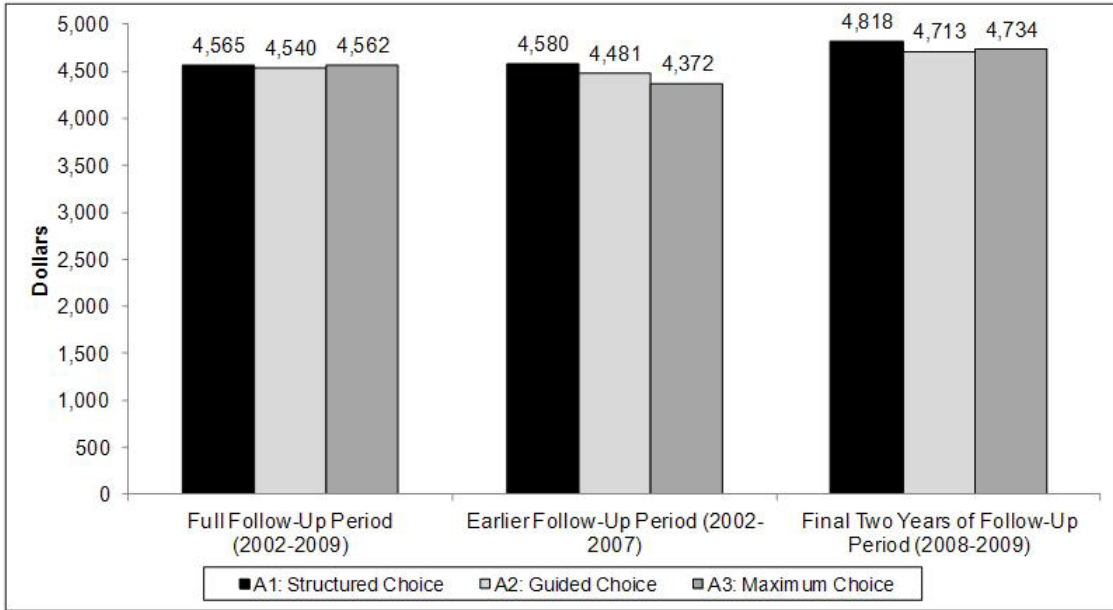
Source: State Unemployment Insurance wage records (see Appendix Table F.8).

Notes: Sample sizes range from 2,647 to 2,627 by ITA model.

◊◊◊ / ◊◊ /◊   Difference between A1 and A2 is significantly different from zero at the 0.01/0.05/0.10 level.
○○○ / ○○ /○   Difference between A1 and A3 is significantly different from zero at the 0.01/0.05/0.10 level.
+++ / ++ /+   Difference between A2 and A3 is significantly different from zero at the 0.01/0.05/0.10 level.

Figure VI.9. Difference in Average Quarterly Earnings Based on Survey and Administrative Data
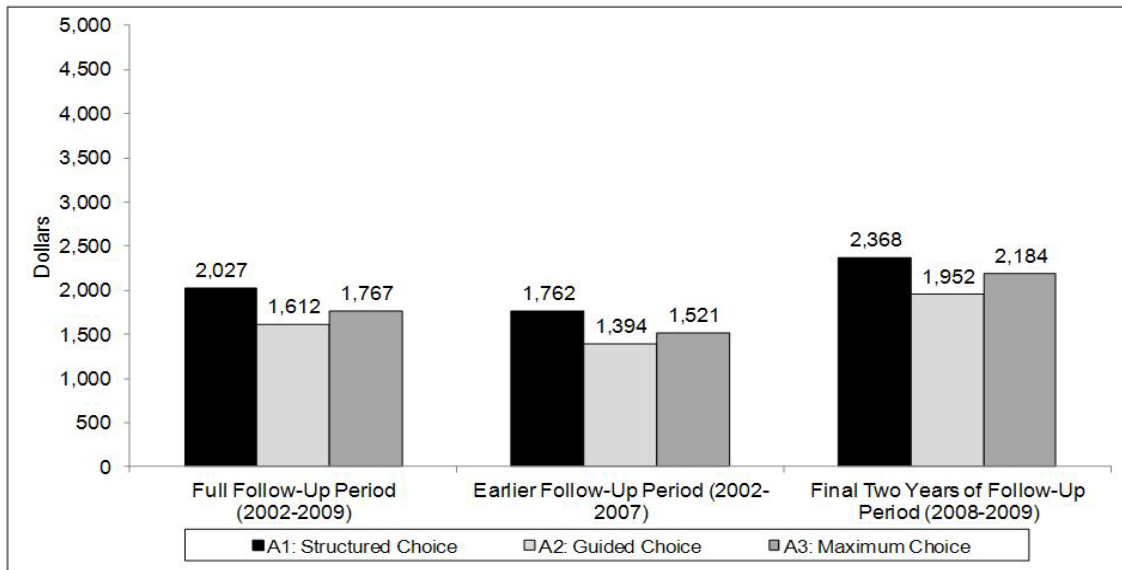
Sources: 15-month and long-term follow-up surveys (see Appendix Table F.3) and state Unemployment Insurance wage records (see Appendix Table F.8).

Notes: Sample sizes range from 768 to 830 by ITA model for the survey data and from 2,647 to 2,627 by ITA model for the administrative records data.

◊◊◊ / ◊◊ /◊   Difference between A1 and A2 is significantly different from zero at the 0.01/0.05/0.10 level.
○○○ / ○○ /○   Difference between A1 and A3 is significantly different from zero at the 0.01/0.05/0.10 level.
+++ / ++ /+   Difference between A2 and A3 is significantly different from zero at the 0.01/0.05/0.10 level.

Figure VI.10. Earnings by Quarter Following Random Assignment (Administrative Data)
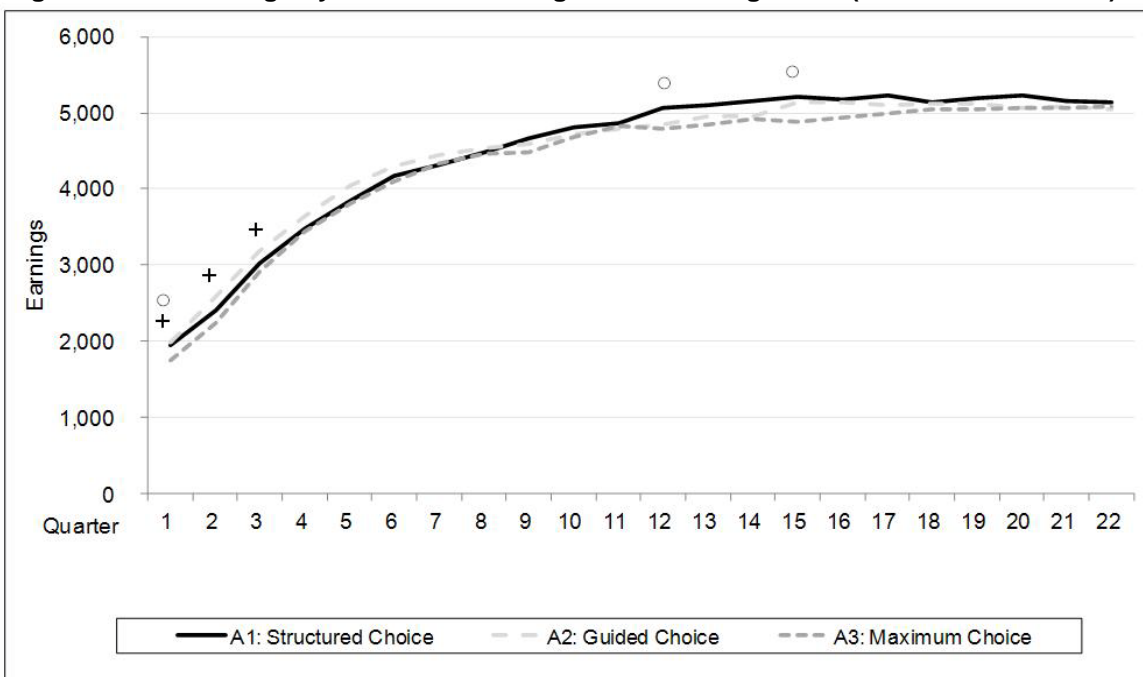
Source: State Unemployment Insurance wage records (see Appendix Table F.7).

Notes: Sample sizes range from 2,647 to 2,627 by ITA model.

◇ Difference between A1 and A2 is significantly different from zero at the 0.05 level.
○ Difference between A1 and A3 is significantly different from zero at the 0.05 level.
+ Difference between A2 and A3 is significantly different from zero at the 0.05 level.

The larger difference in earnings between the two data sources for Structured Choice customers may indicate that they were more likely than Guided Choice customers to have earnings that were not captured in the UI administrative records. Appendix I provides a detailed analysis of the differences in survey- and UI-based earnings measures. This analysis indicates that more than two-thirds of the gap between survey- and UI-based earnings is due to differences in employment rates in the two data sources, rather than differences in earnings reports. The analysis also examines particular types of customers that are more likely to be omitted from UI records. Although the analysis is limited by our ability to identify all types of workers who may not be covered by UI, we find that about one-third of the gap between survey- and UI-based earnings can be explained by the omission from UI records of employment for customers who moved to a different state during the study or who were employed in sectors less likely to be covered by UI. These findings, along with the large quarter-to-quarter fluctuations in quarterly earnings impacts when compared to those found in the survey data, suggest that UI-based earnings may be measured less precisely and less completely than survey-based earnings.

From the outset, we regarded the evaluation's follow-up surveys as the primary source of data to estimate the impacts of the ITA models on customers' employment and earnings. This decision is based on the greater detail on job characteristics available in survey data and on its coverage of more types of jobs. It is further supported by evidence comparing

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earnings and other income data collected from national surveys to IRS tax returns, which finds that survey-based earnings are within 10 percent of tax return earnings (Coder and Scoon-Rogers 1996). Although the context of these national surveys is quite different than that of an experimental evaluation, the similarity of survey-based earnings reports to audited figures is reassuring. In addition, survey-based earnings from self-employment in the study tend to be *under*-reported. This is relevant to our study since reconciling the survey-to-UI earnings gap requires either that survey-based earnings are *over*-reported or UI-based earnings are under-reported.

Based on the results of our discrepancy analysis and the fact that many important types of employment are not covered in UI earnings records, we conclude that it is still appropriate to regard employment and earnings findings based on the survey data as the primary results for our study. However, because our primary results are not robust to the administrative records analysis, they should be interpreted with care. Note also that employment and earnings outcomes are generally the main outcomes of interest for evaluations of a wide range of interventions. Since our study is one among many that encounter discrepancies between UI-based estimates of employment and earnings and estimates based on data from other sources, studies that are explicitly designed to shed light on the factors that contribute to such discrepancies may also be warranted.

CHAPTER VII

IMPACTS ON PUBLIC ASSISTANCE AND HOUSEHOLD INCOME

B y potentially affecting employment and earnings, the ITA models could also affect customers' eligibility and need for Unemployment Insurance (UI) and other public assistance, such as Supplementary Nutritional Assistance (food stamps) or General Assistance. Initially, ITA customers may be likely to receive benefits from these programs because of low employment and income levels experienced while seeking training and employment. Therefore, a key goal of ITAs is to provide customers with the training and skills necessary to find employment and achieve self-sufficiency. Understanding the relative impacts of the ITA models on public assistance benefits is important, because they affect both the customers' household income and the costs incurred by the government in providing the benefits. Using data from the long-term follow-up survey, this chapter examines the relative impacts of the ITA models on the receipt of UI, the receipt of public assistance, and household income.

- *There were few differences among customers assigned to the different ITA models in UI household payments during the last year of follow-up.* The ITA models did not have any substantively notable effects on the receipt of other public assistance over the same period.

- *Despite the impacts on earnings noted earlier, Structured Choice and Guided Choice customers had similar levels of household income and poverty during the last year of follow-up.* Maximum Choice customers had lower average household income levels than Guided Choice customers, although the difference is only marginally significant.

A.   UNEMPLOYMENT INSURANCE

One objective of ITA training is to help customers find employment and reduce or eliminate the need for public assistance. This section examines the impact of the ITA models on the receipt of UI. Our estimates are based on customers' self-reports of UI receipt on the long-term follow-up survey, including the likelihood of receipt, the duration of receipt, and the amount of UI benefits received.[34] The long-term follow-up survey asked respondents if they or anyone in their household received UI or Trade Adjustment Assistance (TAA) in the past year. If they did, the survey asked how much they received on average per week. Receipt of TAA was uncommon—only four survey respondents reported receiving these benefits.

There is no evidence of any difference in UI receipt across the three models. About one in five customers in each model reported household receipt of UI at some point during the year preceding the long-term follow-up survey (Table VII.1). Customers assigned to all three models reported that someone in their household received benefits for about five weeks on average, and collected slightly more than $1,200 in benefits on average (including people who did not receive any UI benefits during the follow-up period).

B.   OTHER PUBLIC ASSISTANCE

Customers whose household income falls low enough may be eligible for public assistance (such as food stamps) or cash assistance (such as Temporary Assistance for Needy Families, Supplemental Security Income, or General Assistance). The long-term follow-up survey asked respondents whether they or anyone in their households received each of these types of assistance at any point during the previous year. If they did, the survey asked for how many months and in what amounts the assistance was received.

The ITA models did not have any notable effects on the receipt of public assistance. Across all three models, about one in five customers reported that their households received food stamps at some point during the year before the long-term follow-up survey, and about one in six reported receiving some other form of cash assistance (Table VII.2). No differences in the rates of public assistance receipt of different approaches were statistically significant, with one exception. Maximum Choice customers reported that their households received cash assistance benefits for one-third of one month longer than Guided Choice customers (Table VII.2). However, this difference is only marginally significant, quite small, and consistent with the conclusion that the approaches did not have any qualitatively important effects on receipt of public assistance.

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[34] In the first ITA study, information on the receipt of UI benefits was collected in the 15-month follow-up survey and also from administrative records. Administrative records on UI benefit collection were not collected for the long-term follow-up study, because such data were costly to obtain and process. In addition, UI administrative records and the 15-month survey yielded very similar estimates of the impacts of the ITA models on UI benefit receipt.

Table VII.1. Impacts on Household Receipt of Unemployment Insurance

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Unemployment Insurance in Past 12 Months						
Received UI (%)	21	22	21	-0	-1	0
Weeks received[a]	5.1	5.2	4.9	-0.2	-0.4	0.2
Total amount received[a]	$1,216	$1,205	$1,300	$11	$95	-$84
Sample Size						

Source: Long-term follow-up survey.

Notes: The model means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics. Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics. Reported impacts may differ from the difference in reported means due to rounding.

[a]Individuals who do not receive unemployment insurance are assigned values of 0.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Table VII.2. Impacts on Household Receipt of Public Assistance

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Food Stamps in Past 12 Months						
Received food stamps	18	19	18	-1	-1	-1
Months received[a]	1.4	1.6	1.4	-0.2	-0.2	0.0
Total amount received[a]	341	356	321	-14	-35	21
Other Cash Assistance in Past 12 Months						
Received cash assistance	14	14	16	-0	2	-2
Months received[a]	1.5	1.4	1.7	0.1	0.3*	-0.2
Total amount received[a]	1,141	1,199	1,300	-59	100	-159

Sample Size

Source: Long-term follow-up survey.

Notes: All measures are for entire household. Weeks of receipt and total amount received are set to 0 for households that did not receive public assistance. Poverty threshold accounts for family size. The model means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics. Reported impacts may differ from the difference in reported means due to rounding.

[a]Individuals who do not receive unemployment insurance are assigned values of 0.

[b]Ranges are inclusive of the highest value.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

C.   HOUSEHOLD INCOME

Household income is of critical concern to customers. As discussed earlier, the ITA model could affect household income via its effects on customers' earnings or receipt of UI and other public assistance. The ITA model could also affect other types of income, such as from spousal employment. For example, higher earnings resulting from training might induce a spouse to work less or to work in a different type of job.

To examine impacts on household income, we examine customers' responses to survey questions about their household's total family income during the year prior to the long-term survey. We also examine household income relative to the federal poverty threshold, which is determined based on household size.

Despite the large difference in the earnings of Structured Choice and Guided Choice customers during the late follow-up period, the difference in household income for these two groups is not statistically significant. Because the quarterly earnings of Structured Choice customers were about $500 higher than those of Guided Choice customers, we would expect household income during the year before the final survey to be about $2,000 higher for Structured Choice customers. The actual figure, however, is only about $1,000; perhaps the differences in earnings were offset by differences in other types of income. Since there were no differences in UI or public assistance receipt (as discussed earlier), it may be that compared to Guided Choice customers, Structured Choice customers had lower levels of income from private sources, such as spousal employment. Another possibility is that the measures of household income, which are not broken down by source, might be more vulnerable to recall error.

We do find a couple of differences in the household income and poverty status of customers in different approaches. Structured Choice customers had an average income $1,815 higher than that of Maximum Choice customers, but again this difference is only marginally significant (Table VII.3). Long-term follow-up survey responses also indicate that Structured Choice customers were 2 percentage points less likely than Guided Choice customers to be in severe poverty (income less than 50 percent of the poverty threshold). This difference is also only marginally significant, and rates of severe poverty are fairly low for all three groups (Table VII.3).

Table VII.3. Impacts on Household Income and Poverty Status

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Household Income	40,675	39,655	38,859	1,019	-796	1,815*
Income Relative to Poverty Line						
Less than 50% of poverty[b]	5	7	7	-2*	-1	-1
Between 50% and 100% of poverty[b]	12	10	11	2	1	1
Between 100% and 200% of poverty[b]	24	27	27	-3	0	-3
Greater than 200% of poverty[b]	59	57	56	3	-1	3

Sample Size

Source: Long-term follow-up survey.

Notes: All measures are for entire household. Weeks of receipt and total amount received are set to 0 for households that did not receive public assistance. Poverty threshold accounts for family size. The model means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics. Reported impacts may differ from the difference in reported means due to rounding.

[a]Households with no individuals who receive Unemployment Insurance are assigned values of 0.

[b]Ranges are inclusive of the highest value.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

CHAPTER VIII

RELATIVE BENEFITS AND COSTS
OF EACH ITA MODEL

The key criterion for determining whether an ITA model is worth implementing is not *whether* it is effective in improving training or employment outcomes, but whether it is effective *enough* to justify its costs. In this chapter, we synthesize the impacts discussed in previous chapters by examining the relative benefits and costs of the three models tested in the ITA experiment.

Because most local workforce agencies were using a model similar to Guided Choice prior to the experiment, we use this model as our reference. Hence, we compare the benefits and costs of switching from Guided Choice to Structured Choice, and then examine the benefits and costs of switching from Guided Choice to Maximum Choice. We focus mainly on benefits and costs from the perspective of society as a whole—the perspective most relevant to policymakers—but also examine benefits and costs from the perspective of customers and of the government.

- *Switching from Guided Choice to Structured Choice would benefit society by about $47,000 per customer.* Our benchmark estimates suggest that, although fewer customers would get ITA support for training, there may be substantial net benefits to offering larger, customized ITA awards coupled with intensive counseling, as compared to the typical ITA model.

- *Switching from Guided Choice to Maximum Choice would yield similar results for the government and for society as a whole.* While more customers could get ITA support with training, there is little advantage in providing ITA benefits through a more flexible, hands-off approach, as compared to the typical ITA model.

The chapter begins with a discussion of our general framework for analyzing the benefits and costs of each ITA model (Section A). It then discusses the estimates of the benefits of each model, including increased earnings, increased receipt of employee fringe benefits, and decreased receipt of Unemployment Insurance (UI) or public assistance (Section B). Costs are then discussed, including the costs of the ITA award, the costs of training that are not funded by ITAs, the costs of the counselors' time spent in activities related to ITAs, and administrative costs (Section C). The chapter concludes by comparing the relative benefits and costs of the approaches and discussing the sensitivity of the overall findings to underlying assumptions (Section D). Impact estimates used in the net benefit calculations but are not presented in the main body of the report are in Appendix G.

A. FRAMEWORK FOR THE BENEFIT-COST ANALYSIS

The benefit-cost analysis uses an accounting framework that itemizes the relative benefits and costs of each ITA model. All estimates of these relative benefits and costs are based on impact estimates, which measure directly the benefit or cost of switching from one ITA model to another. For example, a positive earnings impact is a benefit, and a positive impact on the value of ITA awards is a cost. Sometimes the impact has to be converted into a dollar value. For example, the impact on the time spent by counselors is converted to a cost by applying an estimate of the hourly rate for their time. We include the benefit or cost even if it is based on an impact estimate not statistically different from zero, because even if that estimate is imprecise, it is our best estimate of the size of the impact.

Our analysis focuses solely on benefits and costs that can be measured in monetary terms. It is possible that we fail to capture other benefits of the three ITA models, such as whether customers are personally fulfilled by training or have increased job satisfaction. Along with zero earnings, we exclude, as a cost, estimates of customers' potential earnings lost during their time spent in counseling or training, although we do include the cost of the time spent by counselors.

Our presentation of the benefit-cost framework begins with a discussion of the different perspectives examined. We then discuss the relevant time period for net benefit calculations and the assumptions required to compare benefits across time. A presentation of the different benefits and costs included follows. Last, we discuss the calculation of net benefits and the statistical precision of those estimates. Since many decisions were required to generate the net benefits estimates, sensitivity analyses help assess the robustness of findings. For this reason, we suggest sensitivity checks of each assumption as it is discussed in this section, and we perform the checks in the final section. Appendix C provides further details on the calculation of net benefits.

1. Different Perspectives

The ITA models affect multiple stakeholders. Any increase in earnings, for example, obviously benefits customers, but government also benefits through increases in money collected in taxes. An increase in the value of ITA awards is a cost to the government. For the ITA models, most of the benefits accrue to customers, while the government pays most

of the costs. Because the distinction between benefits and costs is dependent on whose perspective we consider, we examine the benefits and costs from three perspectives, those of (1) customers, (2) the government, and (3) society as a whole.

The benefits and costs to society are the sum of the benefits and costs of switching from one model to another, irrespective of who reaps the benefits or pays the costs. This perspective is the most relevant to policymakers, because it indicates how net resources in the economy are affected by the ITA model. Any benefit to either customers or the government is a benefit to society, and likewise any cost to either customers or the government is a cost to society. In this accounting framework, some benefits and costs cancel each other out from the perspective of society. For example, since taxes are a cost to customers but an equal benefit to government, from society's perspective they are neither a benefit nor a cost.[35]

2.   Time Period

Program costs from the ITA models are incurred at the time of program implementation. However, impacts on relative benefits from the ITA models can continue beyond the observable follow-up period. Impacts on earnings, for example, could persist until the time of retirement, and future impacts on employment and earnings could be associated with impacts on future receipt of UI and other public assistance. Therefore, it is important that future unobserved benefits be incorporated into net benefits calculations.

We include unobserved benefits into net benefits by assuming that the observed impacts on earnings and impacts related to employment and earnings outcomes—such as those on fringe benefits, UI receipt, and other public assistance receipt—continue until an expected retirement age of 62. Here we discuss the decisions required and assumptions made in order to perform net benefit calculations over this unobservable time period.

We decided to standardize the time frame across customers before making assumptions about net benefits in the unobservable time period. Because the duration of follow-up differs by as much as three years across customers, net benefits for those with different follow-up durations are not directly comparable. Standardizing the time frame across customers, however, makes net benefits comparable for all, and also facilitates the interpretation of an overall net benefits estimate. Therefore, we chose the customer with the median age at program entry and the customer with the median follow-up duration to represent the median ITA customer for whom we would calculate net benefits.

Our time frame decisions begin with a discussion of the median ITA customer that determines the period over which we calculate net benefits. Next, we discuss assumptions on the decay of impacts on future benefits over the unobserved time periods. Finally, we discuss the discounting of benefits that accrue after the time of initial program implementation, to reflect the value of these future benefits at the time that costs were incurred.

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[35] We do not consider the deadweight loss of taxes that are created from any transaction costs.

Benefit-Cost Analysis for the Median Customer. The median age of an ITA customer at program entry was 42. The median follow-up duration was 6.8 years, or about 27 quarters. These median values form the basis of our benefit-cost analysis. A retirement age of 62 implies an unobserved future benefits period of about 13.2 years, or 53 quarters. As a sensitivity check, we also estimate net benefits for a retirement age of 65. Quarterly impacts over the observable time period come directly from observed quarterly impacts, and future impacts are based on the final year of follow-up.

Decay of Impact Estimates in Future Time Periods. Impacts on future benefits are assumed to be the same as the impacts on benefits in the final year of follow-up. Alternatively, we could assume that impacts on future benefits do not exist, or that they decline by some portion over time, such as in Ashenfelter (1978) and Lillard and Tan (1992). We decided to base future impact estimates on the full amount of benefits in the final year of follow-up because of the sustained pattern of long-term impacts on employment and earnings observed in the final years of the customers' follow-up periods (Chapter VI), which is similar to the assumption made in McConnell and Glazerman (2001). As a sensitivity check, we also present net benefits over the observable time period to put a bound on any estimated net benefits. Calculating net benefits over this observable time period is equivalent to assuming that impacts on benefits do not last into the future.

Discounting Benefits. Costs are incurred at the time of program implementation, but benefits can accrue over time. Because money today can be invested in alternative productive activities, benefits that accrue over time are discounted to reflect a present-day value that can then be directly compared to costs incurred at the time of program implementation. The value of the chosen discount rate should reflect beliefs of a return on an accessible, long-term investment. We chose the U.S. Treasury's daily real long-term interest rate to reflect these beliefs on long-term investments.[36]

Benefits are first converted into 2002 dollars and then discounted annually by 2.5 percent (the average of the U.S. Treasury's daily real long-term interest rate from 2000 to 2010). [37]Because, on average, these rates were historically low over this period, they may not truly reflect reasonable expectations on a long-term investment. Therefore, we also estimated net benefits using a larger rate of 10 percent to measure the sensitivity of this assumption.

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[36] The "Daily Treasury Real Long-Term Rates" is defined as the unweighted average of bid real yields on all outstanding [Treasury Inflation Protected Securities] with remaining maturities of more than 10 years and is intended as a proxy for long-term real rates."

[37] The real daily rates from January 3, 2000, through December 31, 2010, were accessed on January 24, 2011 at [http://www.treasury.gov/resource-center/data-chart-center/interest-rates/Pages/TextView.aspx?data=reallongtermrateAll]. Previous studies have used averages of the real rate of return on 30-year treasury bonds (Schochet et al. 2006), but the government did not publish these rates from February 18, 2002, through February 8, 2006.

3.   Benefits

We measure five potential benefits of each ITA model:

1. *Earnings.* Increased earnings are a benefit to customers and to society.

2. *Fringe benefits.* Like earnings, additional fringe benefits (including health insurance, retirement benefits, paid leave, and legally required benefits such as workers' compensation insurance) are a benefit to customers and to society.

3. *Taxes.* The higher taxes associated with increased earnings are a cost to customers, a benefit to government, and neither a benefit nor a cost from society's perspective.

4. *Unemployment insurance.* UI benefits (including TAA benefits) are a benefit to customers but a cost to the government. In addition to the payments made to UI beneficiaries, the government also bears the administrative costs of operating the UI program. From the perspective of society, UI payments are merely a transfer from the government to customers, but the UI administrative costs are a cost to both government and society.

5. *Public assistance receipt.* Food stamp benefits and cash assistance are both transfers from the government to customers within society. The costs of administering these programs represent a cost to the government and also to society.

The estimates of the benefits from increased earnings and from UI and public assistance receipt are derived mostly from impacts estimated in previous chapters. Our benchmark estimates of benefits are derived from survey data, which we believe provide the most reliable estimates of these impacts (with the exception of UI receipt). Although administrative records on UI receipt were used in the 15-month follow-up analysis, these data were not collected for this long-term analysis. However, our confidence applying survey-based estimates of UI receipt in the final year of follow-up to other time periods is based on the following findings: (1) there was no statistically significant impact on the receipt of UI benefits using administrative records in the 15-month follow-up analysis; (2) there was no statistically significant impact on survey reporting of UI receipt in the final year of follow-up; and (3) there was no pattern of statistically significant impacts on employment rates in the survey or administrative data over the follow-up period.

The estimation of three benefits merits further explanation:

- *Fringe benefits.* Although customers reported on the survey whether they received health benefits, paid leave, and retirement benefits at each of their jobs, we do not know the monetary value of these fringe benefits. Based on surveys

from the Bureau of Labor Statistics in 2010,[38] we include health benefits, paid leave benefits, retirement benefits, and legally required benefits as 22 percent, 13 percent, 12 percent, and 11 percent of earnings, respectively, when customers reported receiving these benefits from their employer. These percentages are based on total employee costs reported by employers of civilian workers and employee receipt of those benefits in nationally representative surveys. The exact source of these values and the calculation of these percentages are in Appendix G., Table H.1.

- *Taxes.* We assume that all ITA customers paid 17 percent of their earnings in taxes. This tax rate is derived from combining the effective federal income tax rates reported by the Congressional Budget Office (2004) with state consumption and property tax rates reported by the Institute on Taxation and Economic Policy (2003). Although tax rates have changed over time and are likely to fluctuate in the future, we do not perform any sensitivity analyses, primarily because tax payments are considered a direct transfer from customers to the government and so are neutral from the perspective of society—our primary perspective of interest.

- *Administrative costs of UI and public assistance receipt.* We use estimates of the administrative costs of UI and TAA, food stamps, and other cash assistance programs from the U.S. House of Representatives Committee on Ways and Means (2004). The administrative costs are about 9 percent of UI and TAA benefits, 24 percent of the value of food stamp benefits, and 10 percent of the value of cash assistance.

4. Costs

We measure four main types of costs of an ITA model: (1) costs of the ITA awards; (2) training costs not funded by ITAs; (3) the cost of counselors' time; and (4) WIA administrative costs.

ITA Award Costs. These are costs to the government and society. Estimates were derived from administrative records (that is, the evaluation's Study Tracking System [STS]). As discussed in Chapter IV, the vast majority of ITA costs are based on a July 2004 extract from the STS. However, some customers reported using an ITA for training after the date of the extract. Although we believe the ITA costs captured in the STS data are the most accurate, for the benefit-cost analysis we included these additional costs to be conservative in our calculations. That is, we did not want to exclude costs of the program that were reported by customers after the time of the STS extract. This is especially important given the differences across approaches in weeks until program entry, discussed in Chapter V.

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[38] *Employer Costs for Employee Compensation,* updated December 8, 2011, accessed January 18, 2011, at [http://www.bls.gov/news.release/ecec.toc.htm], and *Employee Benefits Survey,* March 2010, accessed January 18, 2011, at [http://www.bls.gov/news.release/pdf/ebs2.pdf].

Training Costs Not Funded by an ITA. Many customers used funding sources other than the ITA award to pay, partially or completely, for training costs. Training costs not funded by ITAs are costs to society and can be costs to customers or government. If training costs are paid for using customers' personal funds, they are a cost to the customer; if they are paid for using government funds (such as Pell grants), they are a cost to the government.

We used a combination of survey and STS data to estimate the training costs not covered by an ITA award. All trainings that were at least partially funded by an ITA award as of July 2004 had their total costs recorded by counselors in the STS. For these partially funded ITA trainings, we calculated non-ITA-funded costs as the difference between the amount of the ITA award and the cost of the training. Trainings that were not funded by an ITA or captured by the STS were estimated in two ways, depending on whether the training was reported in the 15-month or the long-term follow-up survey.

The 15-month follow-up survey did not ask respondents to report training costs, so we do not know the cost of training programs that were paid for entirely by sources other than an ITA. For these trainings, we assumed that programs had costs comparable to similar programs in the same geographic area. For each training program attended by a sample member and not paid for at least partially by an ITA, we identified another program in the same site that was reported in the STS data, had a similar duration, and was provided by a similar training provider (such as community college or private school). We used the cost of that similar program as an estimate of the cost of the non-ITA-funded program. For new training programs reported in the long-term follow-up survey but not in the 15-month survey, we were able to use the reported training costs of the program in the analysis. This was possible because the second survey asked customers to report total training costs directly.

To estimate how much of the non-ITA-funded costs are borne by the government and how much by customers, we again used two different methods, depending on whether the training was reported in the 15-month or the long-term follow-up survey. For the former, we used the distribution of customers who reported using government funding and/or personal sources to pay for training. With this method, we estimated that the government bore 41 percent of non-ITA-funded training costs and that customers themselves funded the other 59 percent. For the long-term follow-up survey, since costs and all funding sources are reported for each of the training episodes, we assigned equal proportions of the total training costs to each source based on the fraction of funding sources they represent. For example, if personal savings and a Pell grant were used for training, then half the training costs would be considered a cost to the customer and half a cost to the government.

Costs of Counselors' Time. These are costs to society and the government. They include the cost of the time counselors spent conducting the four main tasks related to ITAs:

1. *Conducting ITA orientations.* These were the orientations that occurred after the customer was found eligible for training. Typically, they were held one-on-one with the customer.

2. *Counseling customers after ITA orientations and before training.* These were the counseling sessions that helped customers make decisions about training programs.

3. *Preparation and paperwork before the training decision.* Counselors spent time before or after the counseling sessions preparing, collecting information for the customer, reviewing customer files, completing paperwork, and following up with customers by phone.

4. *Paperwork, administration, and counseling after the training decision.* After the customer had made a training choice, counselors spent time arranging for final approval of the ITA, preparing paperwork, monitoring participation in the program, and for some customers, providing job search assistance, resume preparation, or other activities to help customers prepare for the transition from training to employment.

We obtained estimates of the average time counselors spent on each of these tasks through interviews with 37 counselors involved in the ITA experiment. Each counselor was asked to provide an estimate of the average time spent on each of the activities outlined above under each model. From these counselors' reports, an average time spent on each activity was calculated for each site and model.

We calculated the cost of counselors' time by applying their hourly rate. To estimate the average time counselors spent on customers under each model, we combined an estimate of the average time they spent on each activity with information from the STS on (1) whether the customer attended an orientation, (2) the number of counseling sessions the customer attended, and (3) whether the customer received an ITA.

The cost of counselors' time was calculated from their average annual salary and fringe benefit rate. These rates were obtained from each site. The counseling cost per hour did not vary by model, since counselors provided services to customers in all three models. The counseling cost varied from $16 to $21 per hour across the eight study sites.

WIA Administrative Costs. These are costs to the government and society. They include the costs of general administrative functions (accounting and management), monitoring WIA activities, goods and services required for performing administrative functions (such as rent, utilities, and office supplies), travel incurred during WIA administrative activities, and information systems required for administrative activities. The site administrators estimated these costs to be 10 percent—the administrative cost ceiling set by WIA—of the ITA award and counseling costs.

Unmeasured Costs. We do not measure all the overhead costs related to the One-Stop Centers' building and utilities other than those covered by the WIA administrative costs. These costs are excluded from the analysis because they are difficult to measure and do not vary much by model. Also, we do not include any costs incurred by customers for the time and effort spent attending ITA orientations or counseling sessions, as they too are difficult to measure. However, the difference in these costs is likely to be small across customers in

different ITA models and is also small when compared to the costs of forgone earnings from training, which are implicitly captured in the comparisons.

In analyzing the costs of each model, we consider only costs incurred after random assignment. Because customers were randomly assigned to each model, we expect that costs incurred afterward—such as counseling prior to the determination of training eligibility—were the same on average for customers in all three ITA models.

5. Estimating Net Benefits and the Statistical Precision

The beauty of a benefit-cost analysis is that it summarizes in one variable: net benefits—the many different impacts of the different ITA models. Net benefits—the difference between total benefits and total costs—are calculated separately for customers, the government, and society. Society's net benefits are equal to the sum of customers' and the government's net benefits.

While our estimates of net benefits tell us which ITA model has the highest benefits relative to its costs, it is also important to consider how much confidence we can have in such estimates. The components of net benefits are themselves impact *estimates,* which are subject to random estimation error, as are, consequently, our estimates of net benefits.

We account for the statistical variability of estimated net benefits by using our survey sample of about 3,250 customers—for whom we have measures of all the benefit and cost outcomes that compose net benefits—to estimate the variability in net benefits for the full population. For each customer in our survey sample, we construct person-specific net benefits by summing that customer's earnings and other benefits, then subtracting his or her customer-specific costs, including any ITA award and the costs of the counselors' time used. The extent to which these person-specific net benefits vary over the survey sample can inform us of the statistical precision of our net benefits estimates, in the same way that the extent to which earnings vary over the sample can inform us of the statistical precision of any impacts on earnings.

B. ESTIMATES OF BENEFITS

The impact on earnings is the largest component of ITA benefits (Table VIII.1). We estimate that switching from Guided Choice to Structured Choice would increase earnings by about $32,000. Switching from Guided Choice to Maximum Choice would increase them by about $13,500, but this is not precisely estimated. The impacts on fringe benefits, which are closely related to earnings, are correspondingly large. Across all fringe benefits, switching from Guided Choice to Structured Choice contributes about $16,000 more to customers and society. Switching from Guided Choice to Maximum Choice contributes about $4,000, although, like earnings, these benefits are not precisely estimated. The benefits from changes in receipt of UI or public assistance are small compared with impacts on earnings and fringe benefits, and the impacts are not statistically significant for either of the comparisons.

Table VIII.1. Benefits of Switching from Guided Choice for Customers, Government, and Society, in 2002 Dollars

	Structured Choice vs. Guided Choice			Maximum Choice vs. Guided Choice		
	Customers	Government	Society	Customers	Government	Society
Earnings (survey)	31,965**	0	31,965**	13,509	0	13,509
Fringe Benefits (survey)						
Health benefits	5,564*	0	5,564*	1,218	0	1,218
Paid leave	4,095**	0	4,095**	1,217	0	1,217
Retirement	2,453	0	2,452	-115	0	-115
Legally required	3,580**	0	3,580**	1,513	0	1,513
Taxes	-5,434**	5,434**	0	-2,297	2,297	0
Unemployment Insurance						
Benefits	175	-175	0	1,513	-1,513	0
Administrative costs	0	-16	-16	0	-136	-136
Public Assistance Receipt						
Food stamp benefits	-229	229	0	-562	562	0
Food stamp administrative costs	0	55	55	0	135	135
Other cash assistance benefits	-936	936	0	1,604	-1,604	0
Other cash assistance administrative costs	0	94	94	0	-160	-160
Total Benefits	**41,233****	**6,557**	**47,790****	**17,602**	**-420**	**17,182**

Sources: Table VII.1, Table VII.2, Appendix Table G.1, Appendix Table G.2, Appendix Table G.3, Appendix Table G.4, and Appendix Table G.5.

Note: Calculations are based on the median customer as described in the chapter and detailed in Appendix C. The following assumptions are applied: (1) discount rate is 2.5 percent; (2) retirement age is 62; (3) future unobserved impacts are the same as impacts in the final year of follow-up. Total benefits amount is based on adding impacts over different benefits, but significance levels are based on significance level of individual-level total benefits regressions as described in the chapter.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Benefits of Switching from Guided Choice to Structured Choice. This switch would benefit society by $47,790 per customer at the time of program implementation (Table VIII.1). This benefit derives mainly from the increase in earnings and fringe benefits. The government also benefits from this switch, by $6,500, mostly from increased taxes, but this benefit is not precisely estimated (Table VIII.1).

Benefits of Switching from Guided Choice to Maximum Choice. This switch would benefit society by $17,182, although this estimate is not precise (Table VIII.1). The benefit arises mostly from higher lifetime earnings and associated fringe benefits, but these benefits are also not precisely estimated. The switch is costly for the government (-$400) because of increased use of UI and public assistance benefits among Maximum Choice consumers. Although Maximum Choice customers, on average, earn higher incomes, the additional amount they pay in taxes does not offset the increased government costs for UI and other public benefits (Table VIII.1). Given the lack of statistical precision, there is no

strong evidence that switching from Guided Choice to Maximum Choice affects benefits across the three perspectives.

C. ESTIMATES OF COSTS

The first component of costs—the ITA awards—varies significantly across approaches and is the largest component of the costs of switching between approaches. The ITA award varies across approaches for two reasons. First, for customers who received an ITA, the average award was around $1,800 more for Structured Choice customers than for those in the other two models who received one (Table VIII.2).[39] Second, the rate at which customers received an ITA varied by model. Maximum Choice customers were 6 to 7 percentage points more likely than customers in the other approaches to obtain an ITA (Chapter IV). Together, these two factors imply that across all three models, the average ITA costs per customer were highest under Structured Choice and lowest under Guided Choice. Taking the average over all customers and setting the ITA award cost to zero for those who did not receive an ITA, the difference in the cost of the ITA awards between Structured Choice and Guided Choice was $1,200 per customer, and the difference between Maximum Choice and Guided Choice was $300.

The second component of costs—training not covered by ITAs—was similar in magnitude across the three models. When including costs both to the individual and to the government, customers spent $1,600 to $1,800 in non-ITA-funded training across ITA models (Table VIII.3). However, the difference in these costs across approaches was not statistically significant.

The third component of costs—counselors' time—did vary by model. However, while the differences were statistically significant, the magnitudes of these differences were small. As expected, the total time spent by counselors on customers was highest for Structured Choice and lowest for Maximum Choice. On average, counselors spent about one hour (61 minutes) more on Structured Choice customers than on Guided Choice customers and two hours (119 minutes) less on Maximum Choice customers than on Guided Choice customers (Table VIII.4). This time difference translates into an additional cost of $20 per customer for switching from Guided Choice to Structured Choice and a $37 savings for switching from Guided Choice to Maximum Choice.

Cost of Switching from Guided Choice to Structured Choice. We estimate that society would bear a cost of $1,164 from a switch from Guided Choice to Structured Choice, which is precisely estimated (Table VIII.5). It arises because Structured Choice customers' higher ITA awards were only partially offset by decreased non-ITA-funded training costs. The government would bear a cost of $1,288 per customer eligible for WIA-funded training as a result of such a switch.

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[39] This value differs slightly from the estimated ITA award in Table IV.7 (by about $100) for two reasons: (1) to be conservative in our inclusion of costs, we included additional ITA trainings from the long-term follow-up that were reported after the STS extract date of July 2004; and (2) this sample contains only people who responded to the long-term follow-up.

Table VIII.2. ITA Award Costs

	Means			Differences/Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
ITA Cost per ITA Trainee ($)	4,792	2,905	3,052	1,886***	147**	1,739***
Percentage Who Received an ITA[a]	59	58	66	1	7***	-6***
ITA Cost per Customer ($)	2,965	1,725	2,027	1,240***	302***	938***

Sources: 15-month follow-up survey, long-term follow-up survey, and Study Tracking System (extract as of July 2004).

Note: The model means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics. Reported impacts may differ from the difference in reported means due to rounding.

[a]The entire STS extract sample was used for the creation of this variable.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Table VIII.3. Non-ITA-Funded Training Costs

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Costs to Customers	964	1,088	1,076	-124	-12	-112
Costs to Government	621	709	706	-88	-2	-86
Costs to Society	1,585	1,797	1,782	-212	-14	-197

Sources: 15-month follow-up survey, long-term follow-up survey, and Study Tracking System (extract as of July 2004).

Note: The model means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics. Reported impacts may differ from the difference in reported means due to rounding.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Table VIII.4. Components of the Costs of Counselors' Time

	Means			Differences/Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Orientation						
Percentage who attended orientation	69%	67%	74%	2	7***	-5***
Orientation duration for those who attended orientation (minutes)	34	31	21	3	-10***	12
Orientation duration for all customers (minutes)	23	21	16	2***	-5***	7***
Counseling						
Percentage who attended counseling beyond orientation	66%	59%	4%	7***	-55***	62***
Number of counseling sessions for those who attended counseling	2	2	1	0	-1	1
Duration of a counseling session (minutes)	96	74	28	22	-46	68
Counseling duration for all customers (minutes)	63	44	1	19***	-43***	62***
Preparation and Paperwork						
Percentage who attended counseling beyond orientation	66%	59%	4%	7***	-55***	62***
Time spent for those who attended counseling beyond orientation (minutes)	153	107	48	46	-59	105
Time spent for all customers (minutes)	100	63	2	38***	-61***	98***
Counseling Activities After Training Decision						
Percentage who received an ITA	59%	58%	66%	1	7***	-6***
Time spent for those who received an ITA (minutes)	122	121	92	1	-29	31
Time spent for all customers (minutes)	72	71	60	2	-10***	12***
Total Time (minutes)	**258**	**197**	**79**	**61***	**-119***	**180***
Counseling cost per minute	$0.32	$0.32	$0.32	$0	$0	$0
Total Cost of Counseling Time	**$83**	**$63**	**$26**	**20***	**-37***	**57***

Sources: Study Tracking System and data collected from counselors and administrative staff during site visits.

Notes: As the means of the following outcomes are calculated for only a subsample of customers, the differences between approaches cannot be interpreted as impacts: orientation duration for customers who attended orientation, counseling session duration for those who attended counseling sessions, time spent in preparation and paperwork for those who attended counseling beyond orientation, and post-training decision counseling duration for those who receive an ITA. Means for each model, conditional differences, and impacts are all regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics. Reported impacts may differ from the difference in reported means due to rounding.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Table VIII.5. Costs of Switching from Guided Choice for Customers, Government, and Society, in 2002 Dollars

	Structured Choice vs. Guided Choice			Maximum Choice vs. Guided Choice		
	Customers	Government	Society	Customers	Government	Society
ITA Awards	0	1,240***	1,240***	0	302***	302***
Non-ITA-Funded Costs	-124	-88	-212	-12	-2	-14
Counselors' Time	0	20***	20***	0	-37***	-37***
WIA Administration	0	115***	115***	0	18***	18***
Total Costs	**-124**	**1,288***	**1,164***	**-12**	**281**	**269**

Sources: Table VIII.2, Table VIII.3, and Table VIII.4.

Note: Total costs amount is based on adding impacts over different costs, but significance levels are based on significance level of individual-level total costs regressions as described in the chapter.

*/**/*** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Cost of Switching from Guided Choice to Maximum Choice. We estimate that society would bear almost no cost from a switch from Guided Choice to Maximum Choice (Table VIII.5). The additional ITA award costs that occurred because more ITAs were awarded to Maximum Choice customers were partially offset by customers' lower use of counseling.

D. THE NET BENEFITS OF SWITCHING ITA MODEL

Policymakers are interested in the net benefits of switching from one ITA model to another, that is, the benefit of switching net of its cost. This section begins by presenting our benchmark estimates of the net benefits—those based on the best available data and, in our judgment, the most appropriate assumptions. We then discuss the robustness of our findings to alternative assumptions.

1. Benchmark Estimates

Net Benefits of Switching from Guided Choice to Structured Choice. Society would benefit by about $46,600 by switching from Guided Choice to Structured Choice when considering the median worker's earnings until retirement (Figure VIII.1). The government would also benefit—by about $5,000—from the switch, mostly through increased taxes, which more than offset the higher costs from the larger ITA awards and increased counseling costs of the Structured Choice model, although this net benefit is not precisely estimated (Figure VIII.1).

Figure VIII.1. Net Benefits of Switching from Guided Choice for Customers, Government, and Society, in 2002 Dollars
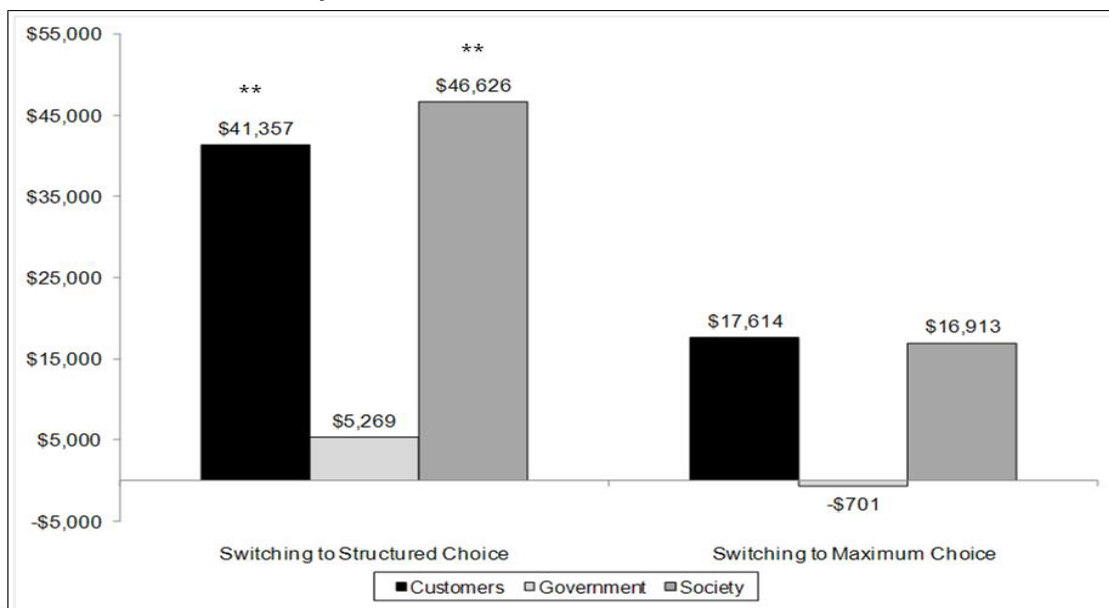
Sources: Authors' calculations based on analyses for the impact evaluation of the ITA Experiment (see Tables VIII.1 and VIII.5).

Note: Net benefits are estimated by adding total benefits and total costs, but significance levels are based on significance level from net benefit regressions (as described in the chapter).

*/**/***   Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Net Benefits of Switching from Guided Choice to Maximum Choice. The net benefit to society of a switch from Guided Choice to Maximum Choice is about $16,900. However, this estimate is not statistically significant. Customers are the main beneficiaries from such a switch, mostly because of higher earnings. The additional costs to the government arise because Maximum Choice customers are more likely to receive UI and other public assistance.

2. Sensitivity Analysis

Our benefit-cost analysis requires assumptions about key parameters, and the values of these parameters are not known with certainty. Although we believe our benchmark estimates to be based on reasonable assumptions, sensitivity analyses help assess whether the conclusions are driven by the assumptions we have made or are robust to modest changes in the parameter values.

When estimating net benefits, we were particularly concerned about the robustness of the estimated impacts on benefits. The calculation of benefits required many different assumptions, and the resulting benchmark impacts are large in magnitude. To test the validity of the assumptions, we recalculated the impacts on benefits after adjusting one assumption at a time. Appendix G. contains tables that present the estimated impacts on benefits of switching from Guided Choice to the two other approaches for each of the sensitivity checks discussed below.

We are less concerned with checking the sensitivity of impacts on the cost estimates, since differences in the ITA award amounts comprise nearly all the differences in costs across the ITA models. Since data on ITA awards came mostly from well-maintained administrative records, few meaningful assumptions were required when estimating impacts on costs.

The Precision and Direction of Net Benefit Results Are Robust When Retirement Age Is 65. When we assume a retirement age of 65 instead of 62, switching from Structured Choice to Guided Choice increases the estimated net benefit to society by nearly $6,000 per customer (Table VIII.6). Since we have found a positive impact on earnings from this switch, it is not surprising that net benefits will increase from longer time spent working. The benefit to government also increases, mostly because of the higher taxes received, but this benefit is not precisely estimated.

The Precision and Direction of Net Benefit Results Are Robust When Limiting Analysis to the Observable Follow-up Period. It is highly unlikely that any identified long-term impact on earnings would cease altogether after the follow-up period ends. Whether this impact deteriorates over time, however, is unknown. As a lower bound on the net benefits of switching approaches, we recalculated benefits over the observable follow-up period only. The direction and precision of the impacts from switching approaches is maintained (Table VIII.6). Over the observable follow-up period, switching from Guided Choice to Structured Choice increases the net benefit to society by $15,500. The estimate from this switch is appreciably smaller than our benchmark estimate, but we consider it a lower bound on estimated net benefits because there is no reason to believe that the positive impacts on earnings observed in Chapter VI would reverse beyond the follow-up period. The estimated net benefit remains positive and statistically significant.

Table VIII.6. Sensitivity Checks on Net Benefits of Switching from Guided Choice for Customers, Government, and Society, in 2002 Dollars

Assumption	Structured Choice vs. Guided Choice			Maximum Choice vs. Guided Choice		
	Customers	Government	Society	Customers	Government	Society
Benchmark	41,357**	5,269	46,626**	17,614	-701	16,913
Retire at Age 65	46,330**	6,047	52,377**	19,919	-706	19,213
Over Observable Follow-Up	14,399**	1,053	15,453**	5,115	-672	4,443
Discount Rate = 10 Percent	22,959**	2,395	25,353**	9,356	-652	8,704
Administrative Data	-11,474	-1,203	-12,677	5,575	-2,592	2,983

Sources: Table VIII.1, Table VIII.5, Appendix Table G.6, Appendix Table G.7, Appendix Table G.8, and Appendix Table G.9.

Note: Net benefits amount is estimated by adding impacts on the different total benefits and total costs, but significance levels are based on significance levels from net benefit regressions (as described in the chapter).

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

The Precision and Direction of Net Benefit Results Are Robust to a Discount Rate of 10 Percent. The benchmark discount rate of 2.5 percent is based on long-term real rates from treasury bonds over the 2000s. If alternative and more productive activities were available to program administrators, this discount rate might not be sufficiently high. Increasing the discount rate to 10 percent does not change the direction or precision of the estimated impact on net benefits of switching from Guided Choice to one of the other two models (Table VIII.6). The net benefit to society of switching from Guided Choice to Structured Choice is $25,400. This impact is appreciably smaller than the benchmark estimate because most of the benefits are derived from customer earnings over 20 years that are discounted back to the time of random assignment. Even when using a discount rate of 10 percent, which is higher than interest rates currently available to investors, the magnitude of net benefits for society from this switch is still large.

The Precision and Direction of Net Benefit Results Are Not Robust to Using UI Administrative Records to Estimate ITA Impacts on Earnings. When replacing survey earnings data with administrative data on earnings, the findings do change—there is no longer a positive net benefit to customers and society of switching from Guided Choice to Structured Choice. This difference is due to the absence of a positive impact on earnings from the switch. When using administrative data on earnings, switching from Guided Choice to Structured Choice costs society $12,700, although this is not precisely estimated.

Overall, our estimates are robust to changes in assumptions when calculating net benefits using survey data. The precision and direction of these impacts were maintained under a wide range of assumptions, even under conditions that favored a null finding, such as the assumption that there were no benefits of the program beyond the observation period. Even though the magnitude of estimated benefits varied depending on assumptions, the benefits to customers and society of switching from Guided Choice to Structured Choice were generally large. The lone exception is that our net benefit findings were not robust when using administrative records as the source of earnings data. However, as we discuss in Chapter VI, we believe that the long-term follow-up survey provides more accurate information on ITA customers' earnings.

While our sensitivity analyses reveal some uncertainty about the exact magnitude of the net benefits, we conclude that customers and society would benefit markedly from a switch to Structured Choice over Guided Choice without costing the government. In contrast, there is no evidence that switching from Guided Choice to Maximum Choice would either benefit or cost customers, the government, or society, since all net benefits from this switch are imprecisely estimated.

CHAPTER IX

ITA MODEL EFFECTS BY CUSTOMER SUBGROUPS AND SITES

The ITA models might have been more effective for some types of customers than for others. For example, if dislocated workers had more intensive training needs than other customers, and if higher caps on ITA awards made such training more accessible, then these workers might have experienced larger benefits from Structured Choice. In addition, adult workers and other less-educated or -experienced customers might perform worse under Maximum Choice if they are less familiar with both the training and the employment market and thus more likely to make uninformed choices without counseling support.

- There is little evidence of differences in the relative impacts of the ITA models based on customers' age, educational status, and vocational certificate status.

- Structured Choice was effective in promoting participation in and completion of training and long-term self-sufficiency for male, but not for female, customers.

- Maximum Choice increased the weeks in training, the likelihood of completing a program, and the average earnings for dislocated workers but not for adult workers.

- Maximum Choice was effective at increasing employment and earnings for white, non-Hispanic customers, but not observed for customers of other racial or ethnic backgrounds.

- The impacts of Structured Choice relative to Guided Choice on employment in an occupation matching the training program and on earnings appear to be robust to differences in customer characteristics.

- The impacts of Structured Choice on earnings relative to Guided Choice were not observed in North Cook County.

- Structured Choice was effective at increasing employment rates and reducing receipt of unemployment benefits relative to Guided Choice in Charlotte, but not in other study sites.

Similarly, the effectiveness of ITA models could have varied across individual study sites. For example, the overall availability of training vendors or of particular types of vendors might be constrained in some sites. If it is, then compared to customers in other sites, those with fewer private vendors available might not benefit from the additional counseling of the Structured Choice model, which could expose the customer to more productive training options. The caps on fixed ITAs under Guided Choice and Maximum Choice and on customized ITAs under Structured Choice also varied across sites, and this could have contributed to differences in outcomes as well.

We examined the relative impacts of the ITA models separately for a variety of subgroups and for each study site. We selected the subgroups (listed in Table IX.1) before analysis began, based on the likelihood of variation in impacts across them and their importance for WIA program operations. We compared impacts for each subgroup against impacts for those not in that subgroup, and impacts within each study site against the combined impacts across all other sites.

Examining effects on a large set of outcomes for many subgroups creates a risk of finding, between research groups, statistically significant differences that are in fact due to chance. To reduce this risk, we examined only 10 key study outcomes for the subgroups and ITA study sites identified in Table IX.1. These key outcomes included three training outcomes, three labor market outcomes, and four income and self-sufficiency outcomes. The three training outcomes pertain to programs started within three years of random assignment: (1) whether the customer attended any training, (2) the number of weeks spent in training within this three-year period, and (3) whether the customer completed any training program. The three labor market outcomes refer to the final two years of the follow-up period: (1) the percentage of quarters employed, (2) whether the customer was ever employed in an occupation that matches one of the customer's training programs, and (3) average quarterly earnings. The four measures of income and self-sufficiency refer to the year before the long-term follow-up survey: (1) household income, (2) whether household income was below the poverty line, (3) whether anyone in the household received unemployment insurance benefits, and (4) whether anyone in the household received SNAP or cash assistance benefits.

Even with the restricted number of outcomes, the number of subgroups and sites considered still leaves open the possibility of estimating statistically significant impacts by chance. Thus, we are more attentive to the pattern of results for a given subgroup or site than to individual impact estimates. This model emphasizes differences that are likely to be meaningful in the effectiveness of ITA models. Our discussions focus on those subgroups and sites that exhibit statistically significant differences in impacts (at the 5 percent level) for multiple key outcomes. If estimated impacts are significantly different across subgroup categories or sites on no more than one key outcome, we characterize our findings as showing little evidence of impact differences. For example, because the estimated impacts of Structured Choice relative to Guided Choice for older workers are significantly different from the analogous impacts estimated for younger workers on only 1 of the 10 key outcomes, we categorize this pattern as showing little evidence of differences in impacts. Conversely, because we found significant differences between the impacts of Maximum

Choice (compared to Guided Choice) on two outcomes for dislocated versus adult workers, we discuss these differences in more detail. Appendix H provides our full set of subgroup and site findings.

Table IX.1. Subgroups Examined in ITA Impact Analysis

Subgroup Measure	Subgroup Categories
Based on Site	
Site	• Phoenix • Maricopa County • Bridgeport • Jacksonville • Atlanta • Northeast Georgia Region • North Cook County • Charlotte
Based on Customer Characteristics	
Dislocated Worker Status	• Dislocated worker • Adult worker
Age	• Age at baseline over 40 • Age at baseline 40 or less
Gender	• Female • Male
Race/Ethnicity	• White, non-Hispanic • Race/ethnicity other than white, non-Hispanic
Education Status	• Had a high school diploma or less education • Had more education than a high school diploma
Vocational Certificate Status	• Had vocational certification • Did not have vocational certification

A. FINDINGS BY CUSTOMER CHARACTERISTICS

We investigated differences in the effectiveness of the ITA models on subgroups defined based on dislocated worker status, age, gender, race/ethnicity, educational status, and vocational certificate status. Subgroups were defined based on customer characteristics reported on the baseline information form completed prior to random assignment. This section discusses findings from this subgroup analysis.

We find little evidence of differences in relative impacts for subgroups defined by baseline age, educational status, or vocational certificate status. Importantly, we find no evidence of subgroup differences in the effectiveness of Structured Choice relative to Guided Choice on labor market outcomes. Thus, the large Structured Choice impacts on earnings and employment in an occupation matching a training program (discussed in Chapter VI) appear to be robust to differences in customer characteristics. We do find some

differences in the relative effectiveness of the Maximum Choice model for subgroups defined by dislocated worker status, gender, and race/ethnicity, which suggests that this model is more sensitive to customer characteristics. Findings for these subgroups are discussed in turn below.

Findings by Dislocated Worker Status. We find evidence that the Maximum Choice model was more effective in spurring training and increasing earnings for dislocated workers than for adult workers (Table IX.2). Among dislocated workers, Maximum Choice customers received four more weeks of training than Guided Choice customers (32 versus 28 weeks). This translated into greater earning capacity for Maximum Choice dislocated workers, as they experienced significantly higher earnings than their Guided Choice counterparts in the final two years of the follow-up ($7,499 and $6,920, respectively).

Analogous impacts on these outcomes for adult workers were significantly smaller when compared to those of dislocated workers. Among adult workers, Maximum Choice customers had fewer weeks of training and lower average earnings than Guided Choice customers, although neither of these impacts is statistically different from zero.

Findings by Gender. The relative impacts by gender suggest that the Structured Choice model was more effective for male than for female customers in spurring training participation, training completion, and long-term self-sufficiency (Table IX.3). Among male customers, those assigned to the Structured Choice model had training participation rates 7 percentage points higher than their Guided Choice counterparts (76 versus 69 percent). Moreover, their training completion rates were 9 percentage points higher (66 versus 57 percent). In the long term, male Structured Choice customers were less likely than male Guided Choice customers to report household receipt of SNAP or cash assistance (26 versus 20 percent). Each of these impacts is significantly more favorable among male customers than among female customers. Female Structured Choice and Guided Choice customers had similar levels of training program attendance, training completion, and long-term SNAP or cash assistance receipt.

Findings by Race/Ethnicity. The Maximum Choice model was more effective at improving labor market outcomes for white, non-Hispanic customers than for customers of other racial or ethnic backgrounds (Table IX.4). Among white, non-Hispanic customers, Maximum Choice customers were employed for a higher proportion of quarters during the final two years of the follow-up than were Guided Choice customers (80 percent versus 75 percent). Their average quarterly earnings during this period were also significantly higher than average quarterly earnings for their Guided Choice counterparts ($7,358 versus $6,588). These impacts on employment and earnings for white, non-Hispanic customers are significantly greater than impacts for customers of other racial or ethnic backgrounds. For customers with race/ethnicity other than white, non-Hispanic, employment rates and average quarterly earnings levels were similar for Maximum Choice and Guided Choice.

Table IX.2. Impacts on Primary Outcomes, by Dislocated Worker Status

	Dislocated Worker						Adult Worker					
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Training Outcomes												
Attended Training Program	74	71	76	3	4**	-2	72	73	79	-1	6	-7*
Weeks in Training Program	32	28	32	4**	4**,†	-0	28	30	26	-2	-4†	2
Completed a Training Program	63	57	63	6**	6**	-0	61	61	66	-0	5	-5
Labor Market Outcomes During Final Two Years of Follow-Up[b]												
Percentage of Quarters employed	82	81	84	1	3*	-2†	76	74	71	2	-4	5*,†
Average Quarterly Earnings	7,459	6,920	7,499	539*	580**,†	-41†	6,568	6,099	5,626	469	-474†	943***,†
Ever Employed in an Occupation Matching Training Program[a]	33	25	29	8***	3	4*	30	30	29	-0	-1	1
Income and Self-Sufficiency Outcomes During Final Year of Follow-Up[c]												
Household Income	42,423	42,171	41,525	252	-646	898	36,696	33,880	33,052	2,816	-828	3,644**
Household Income Below the Poverty Line	14	14	13	0	-1	1	23	24	27	-1	2	-3

IX: Customer Subgroups and Sites

	Dislocated Worker						Adult Worker					
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Received Unemployment Insurance[d]	21	22	21	-1	-1	0	22	20	21	1	1	0
Received SNAP or Cash Assistance[d]	24	22	24	1	1	-0	33	38	39	-5	1	-6
Sample Size	**779**	**815**	**790**				**326**	**266**	**288**			

Sources: 15-month follow-up and long-term follow-up survey.

Notes: The model means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics. Because the outcomes presented could not be defined for some customers, the sample sizes ranges for dislocated workers are A1: 699 to 779, A2: 737 to 815, A3: 713 to 790; and for adult workers are A1: 311 to 326, A2: 250 to 266, A3: 275 to 288.

[a] Training outcome measures are defined for training that started within the first three years of follow-up.

[b] The final two years of follow-up are defined as the eight 13-week quarters immediately preceding the interview date of the long-term follow-up survey. The long-term follow-up survey was collected from August 6, 2009, through May 26, 2010.

[c] The final year of follow-up is defined as the 12 months immediately preceding the date of the long-term follow-up survey.

[d] Receipt of unemployment insurance, SNAP, or cash assistance is based on reports of receipt by anyone in the household.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.
[†] Subgroup impacts are significantly different from one another at the 0.05 level.

Table IX.3. Impacts on Primary Outcomes, by Gender

	Female Customer						Male Customer					
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Training Outcomes												
Attended Training Program	71	74	77	-2†	3	-5**	76	69	77	7**,†	7**	-1
Weeks in Training Program	35	31	35	3	4	-0	27	26	25	1	-1	2
Completed a Training Program	59	59	62	-0†	3	-3	66	57	66	9***,†	9***	-0
Labor Market Outcomes During Final Two Years of Follow-up[b]												
Percentage of Quarters Employed	81	79	80	2	2	1	78	79	79	-1	0	-1
Average Quarterly Earnings	6,473	6,324	6,254	149	-69	219	8,057	7,066	7,733	991***	667*	325
Ever Employed in an Occupation Matching Training Program[a]	31	28	28	3	0	3	33	26	30	7**	4	3
Income and Self-Sufficiency Outcomes During Final Year of Follow-up[c]												
Household Income	38,784	39,388	38,889	-605	-500	-105	43,008	39,846	38,863	3,162*	-984	4,145**
Household Income Below the Poverty Line	18	16	19	1	3	-1	16	18	15	-2	-2	0

IX: Customer Subgroups and Sites

	Female Customer						Male Customer					
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Received Unemployment Insurance[d]	22	22	19	0	-3	3	21	22	25	-1	3	-4
Received SNAP or Cash Assistance[d]	32	29	32	3[†]	3	-0	20	26	24	-5**,[†]	-1	-4*
Sample Size	**589**	**589**	**596**				**516**	**492**	**482**			

Sources: 15-month follow-up and long-term follow-up survey.

Notes: The model means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics. Because the outcomes presented could not be defined for some customers, the sample sizes ranges for females are A1: 539 to 589, A2: 548 to 589, A3: 539 to 596; and for males are A1: 471 to 516, A2: 439 to 492, A3: 449 to 482.

[a] Training outcome measures are defined for training that started within the first three years of follow-up.

[b] The final two years of follow-up are defined as the eight 13-week quarters immediately preceding the interview date of the long-term follow-up survey. The long-term follow-up survey was collected from August 6, 2009, through May 26, 2010.

[c] The final year of follow-up is defined as the 12 months immediately preceding the date of the long-term follow-up survey.

[d] Receipt of unemployment insurance, SNAP, or cash assistance is based on reports of receipt by anyone in the household.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.
[†] Subgroup impacts are significantly different from one another at the 0.05 level.

Table IX.4. Impacts on Primary Outcomes, by Race/Ethnicity

	White, Non-Hispanic Customer						Customer with Other Race/Ethnicity					
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Training Outcomes												
Attended Training Program	73	69	74	4	5*	-1	73	74	78	-0	5*	-5*
Weeks in Training Program	33	30	32	3	2	1	29	28	29	1	1	0
Completed a Training Program	63	55	63	8***	8**	0	62	61	65	1	4	-3
Labor Market Outcomes During Final Two Years of Follow-up[b]												
Percentage of Quarters Employed	78	75	80	2	4*,†	-2	81	82	80	-0	-2†	2
Average Quarterly Earnings	7,141	6,588	7,358	554	771**,†	-217	7,221	6,726	6,582	495*	-144†	639**
Ever Employed in an Occupation Matching Training Program[a]	31	25	25	6**	-0	6**	33	28	32	4	4	1
Income and Self-Sufficiency Outcomes During Final Year of Follow-up[c]												
Household Income	43,405	43,602	42,891	-197	-711	514	38,525	36,440	35,741	2,085	-699	2,784**
Household Income Below the Poverty Line	18	16	16	2	-0	2	16	17	18	-1	1	-2

IX: Customer Subgroups and Sites

	White, Non-Hispanic Customer						Customer with Other Race/Ethnicity					
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Received Unemployment Insurance[d]	21	21	20	-0	-1	0	22	22	22	-1	-0	-0
Received SNAP or Cash Assistance[d]	27	27	28	1	1	-1	26	28	29	-2	1	-3
Sample Size	**601**	**548**	**584**				**504**	**533**	**494**			

Sources: 15-month follow-up and long-term follow-up survey.

Notes: The model means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics. Because the outcomes presented could not be defined for some customers, the sample sizes ranges for White, non-Hispanic workers are A1: 558 to 601, A2: 509 to 548, A3: 536 to 584; and for other workers are A1: 452 to 504, A2: 478 to 533, A3: 452 to 494.

[a] Training outcome measures are defined for training that started within the first three years of follow-up.

[b] The final two years of follow-up are defined as the eight 13-week quarters immediately preceding the interview date of the long-term follow-up survey. The long-term follow-up survey was collected from August 6, 2009, through May 26, 2010.

[c] The final year of follow-up is defined as the 12 months immediately preceding the date of the long-term follow-up survey.

[d] Receipt of unemployment insurance, SNAP, or cash assistance is based on reports of receipt by anyone in the household.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.
[†] Subgroup impacts are significantly different from one another at the 0.05 level.

IX: Customer Subgroups and Sites

B. FINDINGS BY SITE

We find little evidence of differences in relative impacts for Phoenix, Maricopa County, Bridgeport, Jacksonville, Atlanta, and the Northeast Georgia region. In these sites, we found no differences between Structured Choice and Guided choice for any of the key training or labor market outcomes.

We do find evidence of differences in impacts for employment and self-sufficiency outcomes for North Cook County and Charlotte. To facilitate the comparison of differences across these two sites, Table IX.5 presents impact estimates for the primary outcomes across all sites combined, as well as those for North Cook County and Charlotte. The differences for these two sites are discussed below, and site-level impact estimates for all sites are provided in Appendix H.

Findings in North Cook County. For all sites combined, assignment to Structured Choice increased customers' quarterly earnings by $522 as compared to assignment to Guided Choice (Table IX.5). However, these positive earnings gains did not materialize in North Cook County. In this site, Structured Choice customers earned $484 *less* per quarter than Guided Choice customers, although this impact estimate is not statistically significant.

Relative to Guided Choice, Maximum Choice did not appear to have a significant impact on earnings for all sites combined. In North Cook County, however, customers assigned to Maximum Choice earned $959 *less* per quarter, which is statistically significant at the 10 percent level (Table IX.5). Maximum Choice customers in North Cook County were also more likely to report that someone in their household received UI in the final year of follow-up.

Findings in Charlotte. Relative to Guided Choice, Structured Choice had no significant impacts on employment when all sites were combined. However, Structured Choice customers in Charlotte were employed in 8 percent more of the quarters during the last two years of follow-up, and this difference was statistically significant. Compared to Guided Choice customers, customers assigned to Structured Choice in Charlotte were also 13 percent *less* likely to report household receipt of UI in the last year of follow-up.

Table IX.5. Impacts of Switching ITA Models on Primary Outcomes for All Sites Combined, North Cook County, and Charlotte

	All Sites Combined			North Cook County			Charlotte		
	Structured vs. Guided	Maximum vs. Guided	Structured vs. Maximum	Structured vs. Guided	Maximum vs. Guided	Structured vs. Maximum	Structured vs. Guided	Maximum vs. Guided	Structured vs. Maximum
Training Outcomes[a]									
Attended Training Program	2	5**,	-3*	6	3	3	3	6	-3
Weeks in Training Program	2	2	1	6*	6*	0	0	-1	1
Completed a Training Program	4**	6***	-2	7*	2	5	5	8	-3
Labor Market Outcomes During Final Two Years of Follow-Up[b]									
Percentage of Quarters Employed	1	1	0	-4	-4	-0	8**,†	0	8**,†
Average Quarterly Earnings	522**	254	268	-484†	-959*,†	475	751	498	253
Ever Employed in an Occupation Matching Training Program[a]	5***	2	3	7*	-1	8**	6	7	-0
Well-Being and Self-Sufficiency During Final Year of Follow-Up[c]									
Household Income	1,019	-796	1,815*	-1,550	-1,292	-258	65	-572	638
Household Income Below the Poverty Line	0	0	0	-2	-4	2	-0	3	-4
Received Unemployment Insurance[d]	0	-1	0	3	8**,†	-5	-13***,†	-7	-6
Received SNAP or Cash Assistance[d]	-1	1	-2	-0	5	-5	-6	-4	-2

Sources: Appendix Table E.1, Appendix Table E.8, Table VII.1, Table VII.2, Table VII.3, Appendix Table F.2, Appendix Table F.3, Appendix Table F.5, Appendix Table H.10, and Appendix Table H.11.

[a] Training outcome measures are defined for training that started within the first three years of follow-up.

[b] The final two years of follow-up are defined as the eight 13-week quarters immediately preceding the interview date of the long-term follow-up survey. The long-term follow-up survey was collected from August 6, 2009, through May 26, 2010.

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[c] The final year of follow-up is defined as the 12 months immediately preceding the date of the long-term follow-up survey.

[d] Receipt of unemployment insurance, SNAP, or cash assistance is based on reports of receipt by anyone in the household.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

[†] Subgroup impacts are significantly different from one another at the 0.05 level.

CHAPTER X

CONCLUSIONS AND LESSONS LEARNED

T he ITA experiment was designed to provide federal, state, and local policymakers and workforce agency administrators with information about the relative effectiveness of different ITA models. The three ITA models tested in the experiment were designed to reflect both the policies that workforce agencies were most likely to adopt and the diversity of approaches that are allowable under WIA. The approaches tested varied along three policy-relevant dimensions: (1) *the ITA award structure* (that is, whether the award amount was fixed for all customers or tailored to the customer's needs); (2) *required counseling* (that is, whether ITA counseling was mandatory or optional, and its intensity); and (3) *program approval* (that is, whether counselors could veto customers' training choices and deny an ITA, or had to approve them if customers had completed their ITA requirements). By methodically examining the implementation of the three ITA models tested, their relative impacts on a wide range of outcomes—from customers' receipt of counseling, training choices, and overall satisfaction, to their training outcomes and employment and earnings six to eight years after random assignment—and the net benefits of switching between approaches, the experiment provides the best available evidence on the tradeoffs inherent in managing customer choice under different ITA models for customers, the government, and society as a whole.

This chapter highlights the main findings from the ITA experiment and discusses lessons learned that ETA and workforce agencies can consider when deciding how to implement ITAs or how to refine this component of WIA programs. It concludes by considering findings from the ITA experiment within the larger body of evidence on the effects of employment and training services and posing research questions that remain about the continuously evolving workforce investment system.

A. MAIN FINDINGS FROM THE ITA EXPERIMENT

The ultimate criterion for determining whether an ITA model is worth implementing is not whether it is effective in improving customers' training or employment or employment outcomes, but whether it is *effective enough* to justify its costs. The ITA experiment revealed important differences in the relative benefits and costs of the three models tested.

1. **Switching to a model with higher value, customized ITA awards and intensive counseling, as under Structured Choice, could substantially benefit customers and society as a whole without increasing net government costs, but would increase costs for the workforce system.**

Findings from the ITA experiment imply that customers and society would benefit markedly from a switch from the predominant ITA service delivery model (represented in the ITA experiment by Guided Choice) to a model with intensive counseling and higher potential ITA award amounts (represented in the ITA experiment by Structured Choice). Estimates from the benefit-cost analysis indicate that society would benefit by about $46,600 per ITA customer from this switch, while the benefit for customers would be about $41,000 (see Chapter VIII). The government also benefits from this switch, by about $5,000, because increased taxes more than offset the higher costs of larger ITA awards and somewhat more intensive counseling under Structured Choice.[40] However, a switch to Structured Choice would represent a net increase in costs for the workforce system, which would bear the ITA and counseling costs without the offsetting revenue from increased taxes.

2. **The benefits of switching to Structured Choice stem mainly from the higher-value, customized ITA awards possible under this model.**

Structured Choice was designed as a staff-driven and directive ITA model that would require customers to participate in a structured sequence of counseling activities and steer them to "high-return" training—that is, selections expected to significantly increase their earnings relative to the costs of training. To support this goal, under Structured Choice, counselors were given the authority to customize ITA awards to the needs of customers, award larger ITA amounts than under Guided Choice and Maximum Choice, and reject choices for which the expected returns were low. However, this model was not implemented as designed. In practice, counselors were uncomfortable being highly directive in their interactions with customers; they did not push customers toward high-return training and rarely, if ever, rejected customers' training choices. As a result, differences in counseling between the Guided Choice and Structured Choice models were very limited.

*   **Structured Choice and Guided Choice customers had similar ITA counseling experiences.** Reflecting the reluctance of counselors to be directive, we found few significant differences between the ITA counseling experiences of Guided Choice and Structured Choice customers. The latter were as likely as the former to attend ITA orientations, participated in a similar number of ITA-related counseling sessions (two on average) after ITA orientations, and considered a similar number of training programs (slightly more than two). Assignment to Structured Choice appeared to delay slightly (by one to two weeks) these customers' ITA approval and entry into training. But ultimately, Guided Choice and Structured Choice customers were equally likely to receive ITAs to help pay for their training—about 60 percent of customers assigned to either model

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[40] The net benefits to the government are not statistically distinguishable from zero, however.

received an ITA. Of those participating in training, almost 80 percent of customers assigned to either model used an ITA to fund at least part of their training.

- **Structured Choice ITA awards were not as highly customized by counselor discretion as intended.** In contrast to the Guided Choice and Maximum Choice models, Structured Choice tailored the ITA award for each customer depending on the training program that the customer chose and the counselor approved. Because of the higher cap under Structured Choice, counselors could award larger ITA amounts to these customers. However, counselors were also instructed to award higher ITAs only to those Structured Choice customers who chose training with high expected returns, and to award lower ITAs or deny training altogether to Structured Choice customers who chose low-return training. Again, this is not how Structured Choice was implemented. In practice, counselors generally deferred to customer preferences and rarely, if ever, denied training. Counselors tended to award Structured Choice customers ITAs that enabled them to attend their preferred training program. Overall, counselors awarded Structured Choice customers ITAs with an average value of $4,625—about $1,800 (or more than 60 percent) higher than the average awards for Guided Choice (and Maximum Choice) customers. Structured Choice awards typically covered 100 percent of the costs of the chosen training program, compared to about 90 percent of training costs for Guided Choice (and Maximum Choice) customers.

- **The higher ITAs awarded to Structured Choice customers appear to have led them to make somewhat different training choices from those of Guided Choice customers, and to achieve better training outcomes.** Structured Choice customers chose more expensive programs, but overall such programs were for occupations similar to those of the programs Guided Choice customers selected. Structured Choice and Guided Choice customers also spent a similar number of weeks in training during the follow-up period. However, Structured Choice customers were significantly more likely to obtain their training from a private vendor and less likely to attend a community college. They were also less likely to tap personal savings or receive student loans to help pay for their training, which may have contributed to their greater likelihood of completing training and getting a credential. These outcomes, in turn, could have contributed to Structured Choice customers' greater likelihood of being employed in their occupation of training and their higher wages at follow-up.

Because of the limited differences in counseling between the Guided Choice and Structured Choice models, we conclude that the impacts of the latter model are attributable mainly to its more generous ITA awards and the training choices that these awards made possible. However, it is difficult to know the extent to which customers' training choices under Structured Choice, and their outcomes, were influenced by counselor-customer interactions. For instance, it is possible that counselors enhanced awareness among both Structured Choice and Guided Choice customers (and encouraged both groups of customers to consider) the types of programs that Structured Choice customers ultimately attended, but that such programs proved infeasible for Guided Choice customers to attend because of their fixed ITA awards. Alternatively, it is also possible that all ITA customers were already aware of the availability of such programs, but that Guided Choice and Maximum Choice

customers ultimately judged them infeasible with their fixed ITA awards. Therefore, we do not know whether similar outcomes would come about if higher-value, customized ITAs were awarded without the associated ITA counseling.

3. **The positive impacts related to switching to Structured Choice were found for a broad range of subgroups and sites.**

We found little evidence of differences in the impacts of Structured Choice relative to Guided Choice for subgroups defined based on the customer's age, educational status, or vocational certificate status at baseline. The large impacts of Structured Choice on employment in an occupation matching training and on earnings were robust to differences in customer characteristics. The positive impacts of Structured Choice on earnings were also observed in seven of the eight study sites.

4. **Switching from Guided Choice to Maximum Choice may prompt more customers to use ITAs to pay for training, but yield similar benefits and costs for society as a whole.**

Under Maximum Choice, more customers would use ITAs to enroll in training. But, we find no evidence that switching from the predominant ITA model, Guided Choice, to Maximum Choice would benefit or cost customers, the government, or society as a whole. The net benefit to society of a switch to Maximum Choice is about $16,900. Our benefit-cost analysis suggests that customers would be the main beneficiaries from such a switch (by $17,600), mostly because of higher earnings. Relative to Guided Choice, we also estimate modest cost increases ($700) to the government, mainly because the households of Maximum Choice customers may be more likely to receive UI benefits and other public assistance. However, none of these estimates are statistically distinguishable from zero. Therefore, we conclude that switching from the predominant Guided Choice ITA model to Maximum Choice would be neither harmful nor beneficial from a social perspective.

5. **Switching to Maximum Choice would benefit dislocated workers.**

The relative effects of Maximum Choice differed somewhat for dislocated worker and adult worker ITA customers. Dislocated workers who were assigned to Maximum Choice spent more time in training, were more likely to complete their training, and had higher average earnings than dislocated workers assigned to Guided Choice. Adult workers did not appear to derive similar benefits when assigned to Maximum Choice, but neither did fewer counseling requirements lead them to have worse outcomes.

B. LESSONS FOR WORKFORCE INVESTMENT AGENCIES

The ITA experiment offers a host of other lessons that ETA and workforce investment agencies could consider in choosing or refining their ITA models.

1. **Customers were satisfied with the training options, available information, and counseling services offered under *all three* ITA service delivery models.**

The 15-month follow-up survey asked ITA customers about their satisfaction with the process for obtaining an ITA along three dimensions: (1) training options, (2) available information on training programs, and (3) counseling. Between two-thirds and three-fourths of customers expressed satisfaction with the ITA process on each dimension *regardless of model assignment*.

2. **Offering larger ITA amounts could improve customers' training choices and outcomes.**

As noted, because differences in counseling experiences were limited between the Structured Choice and Guided Choice models, we conclude that in practice the main difference between these two models was the structure of ITA. Under Structured Choice, counselors tailored the ITAs to customers' needs and, because the cap was higher, could award a larger amount. Moreover, the cap on Structured Choice ITA awards was set high enough in each study site to make most programs in the state's ETP list affordable. In contrast, under Guided Choice all customers were offered the same fixed ITA amount.

The average ITA award under Structured Choice was $4,625—almost $1,800 higher than the average under Guided Choice, $2,861—and typically covered the full costs of training. With access to these more generous awards, Structured Choice customers were more likely to choose programs offered by private providers and less likely to attend a community college. They were also less likely to tap personal savings or receive student loans to help pay for their training. While Structured Choice customers chose programs for similar occupations and spent a similar number of weeks in training as Guided Choice customers, these differences in ITA awards and training choices translated into significant differences in rates of training completion and credential attainment, as well as differences in rates of employment in the occupation of training and earnings in the long term.

3. **It is difficult for counselors to be directive or constrain spending.**

As noted, Structured Choice was designed to represent a staff-driven, directive model that would steer customers to high-return training. However, counselors were not directive in their interactions with Structured Choice customers and tended instead to defer to these customers' preferences. Counselors gave two main reasons for their reluctance to be directive. First, they felt that it was not in the best interest of customers. They believed that respecting customers' choices was essential to the customers' success in training and feared that being more directive would cause customers to lose their commitment and drop out of training or forgo training altogether. Second, counselors felt ill equipped to be directive. They viewed much of the available labor market information as unreliable and quickly outdated and thus insufficient as a basis on which to gauge the likely return on a training program. Moreover, some counselors felt they were not knowledgeable enough, especially about highly specialized fields, to judge customers' choices.

Under Structured Choice, counselors were also instructed to customize ITAs to customer needs. Subject to a higher cap on ITA awards, counselors were expected to award higher-value ITAs to those Structured Choice customers who chose high-return training and to make low ITA awards or deny training altogether to customers who chose low-return training. This was intended to help ensure that the ITA models tested were "cost neutral" for the ITA study sites—that is, that sites spent about the same average amount on each ITA model. In practice, counselors were unable to constrain spending under Structured Choice. Instead of rationing ITA resources, they tended to work collaboratively with all ITA customers and to award Structured Choice customers tailored ITAs that would enable them to attend their preferred training programs. On average, counselors awarded Structured Choice customers ITA awards that were about $1,800, or more than 60 percent, higher than the ITAs awarded to Guided Choice or Maximum Choice customers. The average ITA award under Structured Choice represented 60 percent of the cap for the model.

4. **ITA-related counseling *alone* has little effect on customers' training choices or outcomes.**

When the ITA experiment was first introduced in the study sites, many counselors were concerned about allowing some customers to make their training decisions without professional guidance. Some counselors expected Maximum Choice customers to struggle finalizing their choices and fail to enroll in training. Others anticipated that Maximum Choice customers would make less-informed decisions, encounter unanticipated difficulties while in training, and drop out of their chosen programs more often. Counselors also feared that Maximum Choice customers would be more likely to choose training for low-wage or high-turnover occupations and thus ultimately to have poorer outcomes. Evidence from the ITA experiment does not support any of these expectations, however.

In practice, Maximum Choice customers were *more* likely to enroll in ITA-funded training (66 percent) than Guided Choice customers (59 percent). As noted, counselors reported that these customers typically came to the ITA orientations with a strong sense of the program they wanted to attend and often completed the award paperwork immediately after the orientation. Maximum Choice customers considered a similar number of training programs as Guided Choice customers, and chose programs offered by similar vendors. Among customers who enrolled in training, both Maximum Choice and Guided Choice customers were equally likely to complete training and earn a credential.

Despite counselors' fears that Maximum Choice customers would gravitate toward training for low-paying or high-turnover occupations, the training programs and occupations chosen by these customers were remarkably similar to those selected by customers assigned to Guided Choice. We also found no significant differences in the occupations that Guided Choice and Structured Choice customers chose to train for. These findings are consistent with counselor reports that they had limited opportunities to counsel customers on their occupational choices, since most customers (1) were reluctant to change careers, (2) already had a strong sense of the occupation they would train for, and/or (3) proposed sensible occupational choices.

In sum, the additional ITA counseling associated with Guided Choice and Structured Choice appeared to have a limited influence on customers' occupational choices or their choice of training providers. ITA counseling also did not appear to influence customers' likelihood of completing training or receiving a credential. Note, however, that all ITA customers made their selections within the constraints of their states' Eligible Training Provider (ETP) lists and with the support of information available from Consumer Report Systems (CRS). In addition, customers in all the study sites had participated in some counseling before being determined eligible for WIA-funded training and being randomly assigned to one of the ITA models. Regardless of the ITA model to which they were assigned, customers also received follow-up and additional support once they enrolled in training or secured employment. Therefore, we do not know whether our findings would hold if *all* counseling—including the counseling that typically occurs before the determination of eligibility for WIA-funded training—or other important WIA program features—including ETP lists, CRS supports, and follow-up after enrolling in training or securing employment—were eliminated.

5.   Mandatory ITA counseling discourages participation in ITA-funded training.

Before being deemed eligible for training and randomly assigned to one of the ITA models, all customers received core and staff-assisted intensive services offered at the One-Stop Centers, which could include several hours of counseling. While Maximum Choice customers were not required to participate in counseling after the ITA orientation, both Guided Choice and Structured Choice customers had additional counseling requirements. This mandatory counseling lowered both the overall training rate and the ITA take-up rate by about 7 percentage points—66 percent of Maximum Choice customers received an ITA compared with 59 percent of Guided Choice customers. Most of this difference is attributable to differences in the rate at which customers assigned to these models showed up to the ITA orientations (74 percent under Maximum Choice and 67 percent under Guided Choice). For this reason, we conclude that it was mostly the *anticipation* of additional counseling, rather than the ITA counseling itself, that discouraged participation in ITA-funded training. If this conclusion is correct, ITA take-up rates could be improved by providing more information about the nature of ITA-related counseling requirements when eligibility for training is determined, to encourage customers to remain engaged and prevent dropout from services.

6.   When ITA counseling is voluntary, few customers request it.

Once they were determined eligible for WIA-funded training and had attended an ITA orientation, Maximum Choice customers were not required to participate in any additional training-related counseling, although it was available if they requested it. Few Maximum Choice customers—only 4 percent—requested counseling, and most of the ones who did participated in only one additional session. Counselors reported that, more commonly, Maximum Choice customers came to the ITA orientation having already chosen a training program, and immediately afterward completed the paperwork for obtaining an ITA.

However, all customers in the ITA experiment—including Maximum Choice customers—had already participated in an average of about five hours of counseling *before*

being determined eligible for WIA-funded training. Hence, we do not know how customers would respond if *all* counseling—including counseling that occurs prior to the determination of eligibility for WIA-funded training—were made voluntary, or what the effects of such a change would be on customer outcomes.

C. THE ITA FINDINGS IN CONTEXT AND REMAINING QUESTIONS

Although ITAs have become well integrated into the practices of local workforce agencies today, their introduction when WIA was passed in 1998 represented an important shift for the workforce system, away from contract-based training in favor of individually managed accounts intended to afford customers greater flexibility and control over their training decisions. While WIA required that local workforce agencies use ITAs for most training, it also granted these agencies flexibility in how to structure and manage these individual accounts. The ITA experiment was designed to help inform such decisions.

By rigorously examining the implementation and relative impacts of three ITA models that differed along important policy dimensions, the experiment provides the best available evidence on the tradeoffs inherent in different approaches to managing customer choice under ITAs. The ITA experiment has found that society and customers would benefit greatly from a switch from the predominant Guided Choice model—which offers fixed ITAs and counseling support as customers formulate their training decisions—toward a model that preserves counseling supports but sets more generous caps on ITA awards and customizes them to customer needs. It also finds that such a switch need not be costly to the government as a whole, although it would increase costs for the workforce system. Relative to Guided Choice, the experiment also finds that embracing models that reduce or eliminate training-related counseling requirements and provide more customer flexibility need not be harmful and may be beneficial, especially for dislocated workers. Such a change could also encourage more WIA customers to use ITAs.

No single study can provide definitive evidence on the effectiveness or value of a particular program or policy intervention. To gain additional confidence and insights into the findings from the ITA experiment, these must be considered within the larger body of evidence to which they contribute.

Recent studies by Heinrich et al. (2009) and Hollenbeck et al. (2005, 2009) examine the impacts of WIA services on participant earnings and employment, and can help provide context for findings from the ITA experiment. Two important distinctions between these studies and the ITA experiment are worth noting before examining how their findings relate to one another. First, the Heinrich et al. and Hollenbeck et al. studies are net impact evaluations. That is, they examine the effects of receiving WIA training assistance (including ITAs) versus not receiving such assistance. In contrast, everyone in the ITA experiment was offered some WIA support with training; what differed was the offer that participants received. Second, although carefully executed with state-of-the-art methods, the Heinrich et al. and Hollenbeck et al. studies use non-experimental methods vulnerable to selection bias. Hence, the evidence they generate must be considered tentative and interpreted with caution.

Keeping these important differences in mind, findings from the ITA experiment are notable. Heinrich et al. and Hollenbeck et al. estimate that the impacts of WIA training may average from several hundred dollars to more than $1,000 *per quarter* and persist over time. These estimates could be interpreted to represent the net impact on customer earnings of providing training support mainly through ITAs, as required by WIA, and *under the predominant Guided Choice model*. If so, they suggest that a switch to Structured Choice could significantly improve the return on investment for WIA training services.

The extended evaluation of the ITA experiment follows a sample of 4,800 study participants (who were randomly assigned to one of the three models tested) for six to eight years after random assignment. Regardless of model assignment, we found that customers' employment rates were very low at intake—when customers were searching for work or enrolling in training—and grew steadily over time, stabilizing at around 80 percent about a year and a half after random assignment. Customers assigned to each of the three ITA models also experienced steady increases from the very low average quarterly earnings observed at program intake. However, earnings increase more steeply and plateau at a higher level—about $500 more per quarter—for Structured Choice customers. Further, the differences in quarterly earnings between Structured Choice and other ITA customers remain positive and statistically significant in most observed quarters beyond two years after random assignment. Projecting the estimated earnings gains for the median ITA customer (age 42 at intake) until retirement (at age 62), we estimate that a switch from the predominant Guided Choice model to Structured Choice (which would cost about $1,200 per customer) could generate benefits to society of almost $48,000, for a net benefit of more than $46,000 per customer. Few studies find net benefits of such magnitude.

The ongoing WIA Adult and Dislocated Worker Programs Gold Standard Evaluation and Impact Evaluation of the Trade Adjustment Assistance (TAA) Program should further enhance the available body of evidence on the effects of WIA services and ITA training. In particular, the WIA Gold Standard Evaluation should provide the first experimental evidence on the net impacts of WIA services overall, and of ITA and other WIA-funded training services, for all WIA customers and for key subgroups. Although this evaluation will not test directly different ITA models, it could also offer insights into the relative effectiveness of different models, because it includes a nationally representative sample of 30 sites with varying ITA policies. The TAA impact evaluation will similarly yield insights into the net impacts of providing access to relatively generous training benefits—as did Structured Choice—for a population that is broadly similar to WIA dislocated worker customers.[41]

Both service delivery systems and the overall policy context in which they operate are constantly evolving. Hence, it is also important to consider that the ITA models evaluated were implemented between December 2001 and March 2004, and the workforce development system may have changed in important ways since then. Two studies that

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[41] In addition to intensive reemployment counseling and generous training assistance, the TAA program provides to qualifying individuals other supports that were not available under the ITA experiment, including extended UI benefits (for up to two years), relocation allowances, and a health care tax credit.

examined WIA implementation (Barnow and King 2005; D'Amico et al. 2005) concluded that many local areas (absent the ITA experiment) used a Guided Choice model that constrained customer choice in notable ways. When the experiment ended, we also found that most study sites implemented ITA policies that resembled a Guided Choice model. Therefore, findings from the ITA experiment appear to remain relevant today.

Because WIA and ITA programs, as well as training markets, have surely evolved since the ITA experiment and the Barnow and King and D'Amico et al. studies were all completed, remaining questions that could be explored in the context of this evolving system include the following:

- How central is counseling overall to achieving the effects of training? What elements of WIA counseling are most beneficial?

- What is the optimal cap for ITA awards? What factors should influence the cap amount?

- If higher ITA caps were implemented across the board, may training providers offer different programs, increase prices, or respond in other ways? How would such changes influence customers' training choices and outcomes?

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Appendix A

Data Collection for Impact Analyses

This appendix describes the collection of data used in the impact analysis. The data come from four sources, which we discuss in turn:

1. The Study Tracking System (STS)

2. The 15-month follow-up survey

3. The long-term follow-up survey

4. Unemployment Insurance (UI) wage records data

1. STUDY TRACKING SYSTEM

We used the STS to collect data on all 7,920 customers who were randomly assigned. Information gathered included customers' characteristics, receipt of services, and outcomes related to the receipt of ITAs.

Customers and counselors recorded data on forms, and a clerk in each site entered the data from the forms into the STS. The three primary paper forms were:

1. *The Baseline Information Form.* Completed by all customers before they were randomly assigned, this short form collected (1) identifying and locating information, such as name, address, telephone number, social security number (SSN), and email address; (2) information on demographic and socioeconomic characteristics, such as race/ethnicity, education, employment, and family structure; and (3) information on receipt of public assistance.

2. *Weekly Service Tracking Report.* Completed by counselors, this form was used to record meetings and other interactions (such as phone calls) the counselors had with the customers.

3. *Request for Training Funds Form.* Customers completed this form once they had chosen the training program they wanted to be funded by an ITA. The form collected information about the training provider, the expected start date of the program, program costs, and other sources of funding for the program. The data were entered into the STS once the counselors approved the choice of training program.

The analysis in this report used an extract of data taken from the STS of July 2004. As the last person was randomly assigned in March 2004, the extract included at least three months of data on every customer. Nine months of STS data are available for 95 percent of the customers in the sample.

2. TWO FOLLOW-UP SURVEYS

Two follow-up surveys were designed to collect information on customers' experiences with obtaining an ITA, their training activities, and their employment outcomes. The 15-month follow-up survey was conducted between November 2003 and July 2005, and was given about 15 months after customers were found eligible for an ITA and randomly assigned to one of the three approaches. The long-term follow-up survey was conducted

between August 2009 and May 2010. On average, the survey took place 7 years after customers were found eligible for an ITA and randomly assigned to one of the three approaches, with a range of 5.5 to 8.5 years. Information collected from both surveys was used in the analysis; however, the final survey sample consists of those who responded to the long-term follow-up survey, regardless of whether they responded to the 15-month follow-up survey. Including people who responded only to the 15-month survey would not allow us to analyze impacts on any long-term outcomes. At the same time, for those responding to only the long-term follow-up, the survey was adjusted to capture customers' entire training and employment histories from random assignment.

a. Sample Selection

We randomly selected 4,800 customers to survey from all 7,920 customers who were randomly assigned to one of the approaches. This selected sample was used for both the 15-month and the long-term follow-up samples. Because we needed to draw the survey sample and begin interviewing at 15 months, before study enrollment was completed, the sampling occurred in two stages. In the first stage, 4,040 customers were randomly selected from among customers who had been randomly assigned before July 2003 (Appendix Table A.1). In the second stage, an additional 760 customers were randomly selected from among customers who had been randomly assigned in July 2003 or later. We used a stochastic allocation procedure to ensure that the sampling rate was about the same across all sites. A total of 62.9 percent of customers were selected for the survey in the first stage, 50.8 percent in the second stage. The sampling rate was lower in the second stage because more people than expected were found eligible for an ITA after July 2003.

Appendix Table A.1. Survey Sample

Site	Enrollment Before July 2003		Enrollment During and After July 2003		Total Enrollment	
	Total	Survey Sample	Total	Survey Sample	Total	Survey Sample
Phoenix	474	296	172	88	646	384
Maricopa County	441	277	232	119	673	396
Bridgeport	627	394	406	206	1,033	600
Jacksonville	671	424	108	55	779	479
Atlanta	1,408	886	0	0	1,408	886
Northeast Region	171	106	0	0	171	106
North Cook County	1,538	967	271	137	1,809	1,104
Charlotte	1,096	690	307	155	1,403	845
Total	**6,426**	**4,040**	**1,496**	**760**	**7,922**[a]	**4,800**

[a]After the survey sample was selected, two duplicates were discovered in the sampling frame (two customers in Approach 2 in Charlotte). Thus, the actual number of unique customers in the population was 7,920.

b. Data Collection Mode

Both surveys were conducted primarily by telephone using computer-assisted telephone interviewing (CATI). Field staff attempted to locate in person the sample members who could not be located by telephone. Once located in person, sample members were handed a cell phone and asked to call the telephone survey center so that the interview could be conducted with CATI. In 31 cases for the 15-month survey and 12 cases for the long-term follow-up survey, the interview was conducted in person with a hard-copy instrument. Because the survey analysis sample consisted of those who responded to the long-term follow-up survey, the final long-term survey disposition for this sample is presented in Appendix Table A.2.

Appendix Table A.2. Final Survey Disposition of Long-Term Study Sample

	Count	Percentage
Total	**4,800**	
Completed	**3,264**	**68.0**
Complete phone	3,060	63.8
Complete field cell phone	192	4.0
Complete field hard copy	12	0.3
Duplicate	**2**	**0.0**
Located Noncomplete	**688**	**14.3**
Refusal by sample member	112	2.3
Refusal by household	4	0.7
Refusal sent to field	113	2.4
Language barrier	12	0.3
Illness/impaired	18	0.4
Away/unavailable	5	0.1
Deceased	79	1.7
Effort ended	315	6.6
Unlocated	**846**	**17.6**

c. Response Rates

Of the 4,800 sample members selected for the survey, 3,264 completed an interview (Appendix Table A.3)—for a response rate of 68 percent for the full sample.[1] The response rates for each approach were within 1 percentage point of each other. By site, the response rate varied from a low of 61 percent in Phoenix to a high of 74 percent in Atlanta.

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[1] After the survey sample was selected, two duplicates were discovered in the sampling frame. Thus, the actual number of unique customers in the population was 7,920, of whom 4,798 were selected for the survey. We show response rates using the full sample of 4,800 customers.

Appendix Table A.3. Response Rates, by Approach and Site

Site	Sampled	Response Rate
Total	**4,800**	**68.0**
Approach 1	1,612	68.6
Approach 2	1,598	67.7
Approach 3	1,590	67.8
Phoenix	384	60.9
Maricopa County	396	68.9
Bridgeport	600	61.7
Jacksonville	479	68.9
Atlanta	886	73.8
Northeast Georgia	106	70.8
North Cook County	1,104	70.2
Charlotte	845	65.4

3. UNEMPLOYMENT INSURANCE WAGE DATA

Data on employment and earnings were obtained from the state UI agencies for all 7,920 customers who were randomly assigned.

a. Data Collection Strategy

UI wage records were collected from the state UI agencies in the six states included in the ITA experiment—Arizona, Connecticut, Florida, Georgia, Illinois, and North Carolina.[2]

We collected the data for a given state by sending a list of the SSNs for all customers in the experiment to the state UI agency, which matched UI wage records to each SSN and sent back a dataset containing UI wage records for each successful match. If a customer's SSN did not match records on databases at the state UI agency, we assumed that the person did not have UI-covered earnings during the period of the evaluation.

The data collected for the ITA evaluation covered a period of nine years. The record matching was performed by each state agency at two points in time. As many states archive wage records data every two to three years, we collected the data during four rounds—two for each record-matching process—to prevent the loss of data from early time periods. Based on the first set of matches, the first and second rounds of data collection included

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[2] We obtained the Illinois data from the Administrative Data and Research Evaluation, an alliance of nine state partners. Each partner has negotiated data-sharing agreements with state agency owners of administrative data. These agreements permit controlled access to administrative data sources for authorized research and evaluation purposes that do not disclose the identity of individuals or business entities.

data from 2000 through 2003 and 2003 through 2005, respectively. Based on the second set of matches, the third and fourth rounds of data collection included data through the second quarter of 2008 and through the final quarter of 2009, respectively.

b. Measures Included in UI Earnings Records

Employers in most states are required to maintain and submit earnings records to the state's UI system for workers in jobs covered by UI. These records, which are maintained in machine-readable format, are used to determine workers' eligibility for UI if they are laid off.

The UI wage records include most but not all earnings; they consist of total quarterly earnings reported by employers to state UI agencies for each employee. By law, most employers are subject to a state UI tax and must report what is paid to each employee, including regular earnings, overtime, and tips and bonuses. In most states, the Federal Unemployment Tax Act (FUTA) applies to employers who (1) paid wages of $1,500 or more during any calendar quarter in the current or preceding calendar year, or (2) employed at least one worker for at least one day in each of the 20 weeks during the current or preceding calendar year.

Most workers are covered under FUTA, but there are some excluded categories. In particular, UI wage records do not cover federal workers, military staff, or self-employed people. Other workers excluded from coverage under the FUTA provisions include railroad employees, workers in service for relatives, most agricultural labor (except workers on large farms), domestic service workers whose employers paid less than $1,000 in wages in any calendar quarter, part-time employees of nonprofit institutions, some students employed by their schools, insurance and real estate agents on commission, and workers performing "casual labor" not in the course of the employer's business (U.S. Department of Labor 2004).

The UI wage records may not accurately reflect all earnings in UI-covered jobs. First, we collected UI data for each customer only from the state in which the person enrolled in the experiment. Thus, the earnings measured based on the UI wage records could underestimate customers' earnings if they worked outside their home states or moved during the follow-up period. Second, state UI agencies do not verify reported SSNs. Thus, the UI wage records could miss earnings from people with SSNs that were incorrectly reported by employers or sample members. Third, employers have financial incentives to underreport earnings to state UI programs, because earnings reported to UI agencies provide the basis for assessing the payroll tax that finances UI benefit payments.

The UI data received from each state contain quarterly earnings data for each reported job that customers held from approximately the first quarter of 2000 to the fourth quarter of 2009. For each state and calendar quarter available, we constructed total quarterly earnings for each sample member by summing reported earnings across each of the customer's employers.

For the analysis, we needed a measure of earnings for quarters measured in relation to random assignment rather than calendar quarters. To do this, we defined the first quarter after random assignment as the calendar quarter during which the customer was randomly assigned if the person was randomly assigned in the first half of the calendar quarter, and as

Appendix A

the calendar quarter after the customer was randomly assigned if the person was randomly assigned in the second half of the calendar quarter. For example, if a customer was randomly assigned on November 14, 2003, the fourth quarter in 2003 was designated as the first quarter after random assignment; if the customer was randomly assigned on November 16, 2003, the first quarter of 2004 was designated as the first quarter after random assignment.

APPENDIX B

WEIGHTING FOR SAMPLING AND NONRESPONSE AND TREATMENT OF MISSING VALUES AND OUTLIERS

This appendix discusses how we adjust for nonresponse and outliers. We begin by describing how we dealt with survey nonresponse to the long-term follow-up survey (Section 1). We then discuss how we impute missing values when a data item is missing because a respondent did not answer a particular question—item nonresponse—in either the 15-month or the long-term follow-up survey (Section 2). We end by examining our treatment of outliers (Section 3).

1. WEIGHTS FOR SAMPLING AND SURVEY NONRESPONSE

Nonresponse occurs when sample members cannot be located, as well as when they refuse to respond to the survey. Although the completion rate was high for the long-term follow-up—68 percent—survey nonresponse can still lead to biased impact estimates if respondents differed from nonrespondents in characteristics correlated with the outcomes of interest. Importantly, how the characteristics of nonrespondents are correlated with the outcomes of interest may differ between our ability to locate sample members and the located sample members' refusal to participate. To adjust for any differences in observed characteristics between long-term follow-up respondents and nonrespondents, we created weights for every survey respondent.

In addition to adjusting for nonresponse, we constructed the weights developed for each survey respondent to account for the sampling process. First, we constructed the weights to "undo" the impacts of the different sampling rates before and after July 2003 (Appendix A), so that customers are represented equally irrespective of *when* they were randomly assigned. Second, we rescaled the weights so that the weighted total number of survey respondents equals the total number of customers in the experiment. Hence, the weight assigned to each respondent was made up of four parts: an adjustment (1) for variation in sampling rates, (2) for unlocated customers, (3) for survey nonresponse among the located customers, and (4) to ensure that the weighted number of respondents equals 7,920—the total number of customers randomly assigned. We discuss each part of the weight construction process next.

Adjustment for Variation in Sampling Rates. To adjust for the differential sampling rate in the first and second stages of the selection of the survey sample, we assigned a base sampling weight of:

$$W_{sampling} = \frac{\text{Population Counts in Sampling Stage}}{\text{Count of Sampled Cases in Sampling Stage}}.$$

Thus, for customers who were selected for the survey sample in the first stage, the base sample weight was $W_{sampling} = \frac{6,426}{4,040} = 1.59$, while customers selected in the second stage had a base sample weight $W_{sampling} = \frac{1,496}{760} = 1.97$. Because of the stochastic allocation procedure used to select customers, the probability of selection is the same for all customers within each stage.

Appendix B

Survey Nonresponse Weights. The 4,800 sampled customers were first classified into two categories: located and unlocated. All located customers were further classified into two groups: respondents and nonrespondents. We classified groups separately based on their locate status and their response status because the customers who were more likely to be located did not always share the same characteristics as the customers who were more likely to respond to the survey. Therefore, we created nonresponse weights to adjust for customer characteristics that were related to survey completion at each step.[3]

Using the baseline information form completed by all customers, as well as from UI earnings records in five sites, we compared the characteristics of located customers to those of unlocated customers (Table B.1), as well as characteristics of survey respondents to those of nonrespondents among the located customers (Table B.2). We found that a larger number of customer characteristics were associated with the likelihood of being located when compared to the number associated with responding. Within some of the sites, the following characteristics were associated with the likelihood of being located: age, gender, race, marital status, having a phone, having an email address, number of persons living in the household, receiving public assistance, months of employment in previous year, having a driver's license, education level, dislocated worker/adult, and self-reported earnings in the past year (Table B.1). Within some of the sites, the following characteristics were associated with the likelihood of response: age, race, dislocated worker/adult, marital status, having an email address, receiving public assistance, household size, and education (Table B.2).

The base sampling weights were first adjusted to compensate for the sample members who could not be located. A common method for computing this weight adjustment is to form weighting cells of sample members with similar characteristics and to use the inverse of the cell response rate as the adjustment factor for sampled members in that cell. The weighting cells are formed to ensure sufficient counts in each class to make the adjustment more stable (that is, to have a smaller variance). The weighting cells were defined by the following variables:

- *Phoenix:* dislocated worker/adult, self-reported earnings in the past year, past two months of earnings from the UI administrative data, and marital status

- *Maricopa County:* education, race, and gender

- *Bridgeport:* has *driver* license, dislocated worker/adult, race, and age

- *Jacksonville:* dislocated worker/adult, race, and age

- *Atlanta: marital* status, has email address, self-reported earnings in the past year, race, and age

- *Northeast Georgia:* dislocated worker/adult

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[3] For the 15-month follow-up survey, 5 percent of the customers were unlocated, and 13 percent of the located customers did not respond. Because this is considered a high rate of locating customers, we did not calculate unlocated adjustment factors separately when analyzing the 15-month follow-up sample. However, for the long-term follow-up survey, 18 percent of the customers were unlocated, and 17 percent of those located did not respond. Given the nearly matching rates of locating customers and survey response of located customers, a two-stage adjustment was preferred.

B.5

- *North Cook County:* marital status, dislocated worker/adult, earnings in past three months from the UI administrative data, and age

- *Charlotte: dislocated* worker/adult, education, gender, and age

For each weighting cell, the unlocated adjustment was calculated by dividing the sum of the number of located and unlocated customers in each cell by the number located in the cell.

$$Adj_{Unlocated,cell} = \frac{\text{Number of Located and Unlocated}_{Cell}}{\text{Number of Located}_{Cell}}$$

Among the located customers, we constructed the nonresponse weights to adjust for differences in characteristics between respondents and nonrespondents in a process similar to that for the locate status weights. Again, the construction of these weights involved grouping survey respondents and nonrespondents into cells based on variables that were related to the probability of responding in that site and the number of people who shared certain characteristics within those sites. These cells were defined by the following variables:

- *Phoenix: sampling* stage and earnings in the past two months from the UI administrative data

- *Maricopa County:* dislocated worker/adult, and earnings in the past two months from the UI administrative data

- *Bridgeport:* gender, months worked last year, and household size

- *Jacksonville:* gender, age, and education

- *Atlanta: education*, gender, age, marital status, public assistance receipt in past year

- *Northeast Georgia:* marital status

- *North Cook County:* age, education, gender, and household size

- *Charlotte:* gender, age, and race

- For each cell, we calculated the nonresponse adjustment by dividing the sum of the number of respondents and nonrespondents in each cell by the number of respondents in the cell.

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$$Adj_{Nonresp,cell} = \frac{\text{Number of Respondents and Nonrespondents}_{Cell}}{\text{Number of Respondents}_{Cell}}$$.

Appendix B

Appendix Table B.1. Percentage of Located and Unlocated Sampled Members, by Site and Other Characteristics

	City of Phoenix (384)		Maricopa County (396)		Bridgeport (600)		Jacksonville (479)		Atlanta (886)		Northeast Georgia (106)		Northern Cook County (1,104)		Charlotte (843)	
	L	UL	L	UL	L	UL	L	UL	L	UL	L	UL	L	UL	L	UL
All (Counts)	309	75	329	67	434	166	394	85	761	125	88	18	962	142	675	168
Age	**				***		***		***				***		***	
Under 35	24.92	38.67	13.98	17.91	44.24	63.86	31.47	40.00	29.57	40.80	37.50	38.89	18.40	30.28	26.67	43.45
35 to 45	26.54	29.33	28.27	34.33	27.42	23.49	29.70	32.94	31.27	38.40	28.41	33.33	32.74	29.58	37.48	33.93
45 to 55	32.69	25.33	39.82	32.84	20.51	10.24	26.40	25.88	28.52	17.60	23.86	27.78	34.62	33.80	27.41	19.05
Over 55	15.86	6.67	17.93	14.93	7.83	2.41	12.44	1.18	10.64	3.20	10.23	0.00	14.24	6.34	8.44	3.57
Gender	*															
Male	45.63	58.67	51.67	52.24	35.25	28.31	38.58	45.88	43.36	38.40	67.05	66.67	56.55	50.00	44.74	46.43
Female	54.37	41.33	48.33	47.76	64.75	71.69	61.42	54.12	56.64	61.60	32.95	33.33	43.45	50.00	55.26	53.57
Ethnicity			**		***											
Non-Hispanic	70.87	73.33	85.71	73.13	79.95	65.66	93.91	92.94	97.11	96.80	98.86	100.00	92.41	92.96	96.89	98.21
Hispanic	29.13	26.67	14.29	26.87	20.05	34.34	6.09	7.06	2.89	3.20	1.14	0.00	7.59	7.04	3.11	1.79
Race			**		***		***		***				***			
Black	27.18	37.33	10.64	10.45	47.00	52.41	30.96	47.06	56.77	72.00	47.73	55.56	11.23	21.83	66.07	67.86
Native American, Asian, or other	18.45	20.00	7.60	17.91	17.05	27.11	8.38	16.47	5.12	8.80	0.00	5.56	20.48	21.83	5.19	6.55
White	54.37	42.67	81.76	71.64	35.94	20.48	60.66	36.47	38.11	19.20	52.27	38.89	68.30	56.34	28.74	25.60
Marital Status	***				***		*		***				***			
Married or living together	44.66	22.67	55.62	55.22	26.96	15.66	44.67	37.65	53.75	36.00	40.91	44.44	57.69	36.62	40.44	32.14
Separated, divorced, or widowed	30.42	32.00	26.44	28.36	22.12	21.08	34.77	30.59	23.13	31.20	30.68	38.89	20.79	28.87	28.15	27.38
Never married	24.92	45.33	17.93	16.42	50.92	63.25	20.56	31.76	23.13	32.80	28.41	16.67	21.52	34.51	31.41	40.48
Has Phone	***				*				**				**			
No	1.29	10.67	0.30	0.00	3.46	7.23	1.52	1.18	0.39	2.40	2.27	0.00	0.62	2.82	2.37	2.98
Yes	98.71	89.33	99.70	100.00	96.54	92.77	98.48	98.82	99.61	97.60	97.73	100.00	99.38	97.18	97.63	97.02
Has Email	***				***								**		**	
No	49.51	69.33	24.01	28.36	59.45	66.87	40.61	40.00	25.76	40.00	56.82	61.11	24.64	33.80	37.19	48.21
Yes	50.49	30.67	75.99	71.64	40.55	33.13	59.39	60.00	74.24	60.00	43.18	38.89	75.36	66.20	62.81	51.79
Has Driver's License	***				***						**		*			
No	7.44	24.00	0.91	1.49	20.05	39.16	1.02	3.53	1.18	1.60	2.27	0.00	4.26	2.82	4.74	7.74
Yes	92.56	76.00	99.09	98.51	79.95	60.84	98.98	96.47	98.82	98.40	97.73	100.00	95.74	97.18	95.26	92.26
People in Household	*															
1	20.39	33.33	20.97	25.37	17.97	15.06	21.07	22.35	18.13	24.00	13.64	38.89	23.39	32.39	23.85	25.00
2	23.30	14.67	32.22	23.88	24.88	27.11	26.40	22.35	26.41	24.80	27.27	5.56	24.53	16.20	25.93	23.81
3	22.98	16.00	18.84	14.93	22.81	23.49	25.13	23.53	20.24	20.80	26.14	22.22	22.35	23.94	21.04	22.62
4	19.09	17.33	14.89	16.42	20.05	19.88	15.48	12.94	22.08	18.40	15.91	27.78	18.61	19.01	17.63	16.67
5 or more	14.24	18.67	13.07	19.40	14.29	14.46	11.93	18.82	13.14	12.00	17.05	5.56	11.12	8.45	11.56	11.90
Education			*		***										***	
GED or less	30.74	33.33	10.03	7.46	21.20	31.33	17.26	21.18	7.88	8.80	34.09	33.33	4.16	5.63	6.67	9.52
High school	32.36	34.67	35.26	41.79	41.71	40.36	34.52	41.18	33.25	39.20	37.50	38.89	21.41	26.06	36.74	52.38
Vocational	13.27	17.33	11.85	20.90	18.66	16.87	16.50	15.29	13.27	15.20	13.64	16.67	8.32	11.97	12.44	10.71
Business or professional	13.27	12.00	19.15	17.91	9.22	9.64	17.01	15.29	15.64	16.00	3.41	5.56	14.35	12.68	17.78	16.67
Bachelor's, master's, or doctorate	10.36	2.67	23.71	11.94	9.22	1.81	14.72	7.06	29.96	20.80	11.36	5.56	51.77	43.66	26.37	10.71

	City of Phoenix (384)		Maricopa County (396)		Bridgeport (600)		Jacksonville (479)		Atlanta (886)		Northeast Georgia (106)		Northern Cook County (1,104)		Charlotte (843)	
	L	UL	L	UL	L	UL	L	UL	L	UL	L	UL	L	UL	L	UL
Earnings	***				*		*		**		**					
None	12.94	12.00	10.64	13.43	17.74	19.88	5.33	7.06	8.15	11.20	4.55	27.78	14.55	17.61	11.56	11.31
Under $4,000	12.62	30.67	5.78	8.96	19.59	27.71	10.91	17.65	10.25	20.80	19.32	5.56	7.90	9.86	14.37	17.86
$4,000-$15,000	27.18	37.33	25.53	28.36	36.41	34.34	29.44	37.65	22.08	20.00	29.55	16.67	15.18	17.61	30.07	33.33
$15,000-$30,000	26.86	16.00	30.70	23.88	18.89	14.46	31.73	22.35	25.10	23.20	34.09	38.89	25.05	27.46	25.04	24.40
$30,000-$50,000	13.92	4.00	17.93	16.42	6.68	2.41	15.74	12.94	22.34	18.40	11.36	11.11	18.92	16.20	12.30	5.36
More than $50,000	6.47	0.00	9.42	8.96	0.69	1.20	6.85	2.35	12.09	6.40	1.14	0.00	18.40	11.27	6.67	7.74
Work Limitation					*											
No	91.91	96.00	94.53	94.03	96.31	99.40	90.61	94.12	97.24	96.80	96.59	88.89	96.05	98.59	95.70	95.24
Yes	8.09	4.00	5.47	5.97	3.69	0.60	9.39	5.88	2.76	3.20	3.41	11.11	3.95	1.41	4.30	4.76
Assistance	***				***										***	
No	77.02	61.33	94.22	88.06	63.59	48.80	91.37	92.94	86.99	81.60	84.09	88.89	96.47	93.66	80.15	68.45
Yes	22.98	38.67	5.78	11.94	36.41	51.20	8.63	7.06	13.01	18.40	15.91	11.11	3.53	6.34	19.85	31.55
Working Now							*						*			
No	91.26	90.67	98.78	98.51	75.58	69.88	81.98	74.12	92.64	91.20	98.86	100.00	99.48	97.89	90.22	86.90
Yes	8.74	9.33	1.22	1.49	24.42	30.12	18.02	25.88	7.36	8.80	1.14	0.00	0.52	2.11	9.78	13.10
Months Worked Last Year	**															
None	12.30	10.67	11.55	13.43	17.97	19.88	5.33	5.88	8.41	10.40	5.68	27.78	11.75	15.49	12.15	13.69
0-3	12.30	20.00	11.85	17.91	17.05	18.67	9.14	9.41	13.40	12.00	18.18	11.11	14.55	14.79	16.89	17.26
3-6	19.09	30.67	23.71	16.42	20.51	25.90	17.26	16.47	21.81	28.00	23.86	16.67	20.79	24.65	23.70	23.81
6-9	26.21	22.67	26.44	22.39	22.35	17.47	27.16	29.41	28.65	22.40	19.32	16.67	23.49	16.20	25.63	25.00
9-12	30.10	16.00	26.44	29.85	22.12	18.07	41.12	38.82	27.73	27.20	32.95	27.78	29.42	28.87	21.63	20.24
Treatment																
Treatment 1	35.28	25.33	33.13	35.82	33.41	31.93	35.28	30.59	33.90	32.80	32.95	38.89	33.26	33.80	33.33	35.71
Treatment 2	32.36	38.67	36.17	23.88	32.26	36.75	32.74	32.94	33.11	32.80	31.82	33.33	33.68	31.69	32.30	35.71
Treatment 3	32.36	36.00	30.70	40.30	34.33	31.33	31.98	36.47	32.98	34.40	35.23	27.78	33.06	34.51	34.37	28.57
Dislocated Worker	***				***		**						***		***	
No	33.33	66.67	27.96	29.85	55.53	75.90	37.82	50.59	19.32	25.60	61.36	44.44	12.58	25.35	26.07	38.69
Yes	66.67	33.33	72.04	70.15	44.47	24.10	62.18	49.41	80.68	74.40	38.64	55.56	87.42	74.65	73.93	61.31
Sampling Stage	*						**									
First	75.08	85.33	69.00	74.63	67.51	60.84	87.06	95.29	100.00	100.00	100.00	100.00	88.25	83.10	82.52	78.57
Second	24.92	14.67	31.00	25.37	32.49	39.16	12.94	4.71	n.a.	n.a.	n.a.	n.a.	11.75	16.90	17.48	21.43

Note: */**/***: The p-value for Fisher's Exact test was significant at the .10/.05/.01 level.
L = located; n.a. = not applicable; UL = unlocated.

Appendix B

Appendix Table B.2. Percentage of Respondents and Nonrespondents Among Located Sample Members, by Site and Other Characteristics

	City of Phoenix (309)		Maricopa County (329)		Bridgeport (434)		Jacksonville (394)		Atlanta (761)		Northeast Georgia (88)		Northern Cook County (962)		Charlotte (675)	
	R	NR	R	NR	R	NR	R	NR	R	NR	R	NR	R	NR	R	NR
All (Counts)	234	75	273	56	370	64	330	64	654	107	75	13	775	187	553	122
Age	*												***		**	
Under 35	23.08	30.67	13.19	17.86	44.86	40.63	32.12	28.13	28.59	35.51	37.33	38.46	16.77	25.13	25.68	31.15
35 to 45	23.93	34.67	29.30	23.21	28.65	20.31	29.39	31.25	31.35	30.84	29.33	23.08	31.74	36.90	35.80	45.08
45 to 55	35.90	22.67	39.19	42.86	18.92	29.69	27.58	20.31	29.20	24.30	21.33	38.46	35.87	29.41	29.66	17.21
Over 55	17.09	12.00	18.32	16.07	7.57	9.38	10.91	20.31	10.86	9.35	12.00	0.00	15.61	8.56	8.86	6.56
Gender					***										**	
Male	43.59	52.00	51.65	51.79	32.43	51.56	36.97	46.88	42.35	49.53	68.00	61.54	57.03	54.55	42.50	54.92
Female	56.41	48.00	48.35	48.21	67.57	48.44	63.03	53.13	57.65	50.47	32.00	38.46	42.97	45.45	57.50	45.08
Ethnicity																
Non-Hispanic	71.37	69.33	84.62	91.07	79.73	81.25	93.64	95.31	97.09	97.20	100.00	92.31	92.65	91.44	96.93	96.72
Hispanic	28.63	30.67	15.38	8.93	20.27	18.75	6.36	4.69	2.91	2.80	0.00	7.69	7.35	8.56	3.07	3.28
Race	*														**	
Black	23.93	37.33	10.62	10.71	48.11	40.63	29.39	39.06	55.96	61.68	46.67	53.85	10.58	13.90	67.09	61.48
Native American, Asian, or other	20.09	13.33	7.69	7.14	16.22	21.88	8.18	9.38	5.20	4.67	0.00	0.00	20.26	21.39	4.16	9.84
White	55.98	49.33	81.68	82.14	35.68	37.50	62.42	51.56	38.84	33.64	53.33	46.15	69.16	64.71	28.75	28.69
Marital Status									*		**					
Married or living together	46.58	38.67	57.88	44.64	26.76	28.13	45.15	42.19	55.05	45.79	45.33	15.38	57.55	58.29	39.78	43.44
Separated, divorced, or widowed	29.91	32.00	25.64	30.36	22.70	18.75	33.94	39.06	23.24	22.43	25.33	61.54	20.26	22.99	28.75	25.41
Never married	23.50	29.33	16.48	25.00	50.54	53.13	20.91	18.75	21.71	31.78	29.33	23.08	22.19	18.72	31.46	31.15
Has Phone																
No	0.85	2.67	0.00	1.79	3.24	4.69	1.21	3.13	0.46	0.00	1.33	7.69	0.39	1.60	2.17	3.28
Yes	99.15	97.33	100.00	98.21	96.76	95.31	98.79	96.88	99.54	100.00	98.67	92.31	99.61	98.40	97.83	96.72
Has Email									*				**			
No	47.01	57.33	24.54	21.43	60.00	56.25	41.21	37.50	24.62	32.71	56.00	61.54	22.97	31.55	36.53	40.16
Yes	52.99	42.67	75.46	78.57	40.00	43.75	58.79	62.50	75.38	67.29	44.00	38.46	77.03	68.45	63.47	59.84
Has Driver's License																
No	5.98	12.00	0.73	1.79	21.35	12.50	1.21	0.00	0.92	2.80	2.67	0.00	4.39	3.74	5.06	3.28
Yes	94.02	88.00	99.27	98.21	78.65	87.50	98.79	100.00	99.08	97.20	97.33	100.00	95.61	96.26	94.94	96.72
People in Household					**								**			
1	20.09	21.33	19.05	30.36	15.68	31.25	22.12	15.63	18.04	18.69	12.00	23.08	23.87	21.39	24.59	20.49
2	24.36	20.00	32.97	28.57	24.86	25.00	26.36	26.56	26.15	28.04	26.67	30.77	23.10	30.48	24.95	30.33
3	21.79	26.67	19.05	17.86	24.05	15.63	23.33	34.38	19.72	23.36	25.33	30.77	24.00	15.51	22.42	14.75
4	19.23	18.67	15.38	12.50	21.08	14.06	15.76	14.06	22.32	20.56	17.33	7.69	18.71	18.18	17.18	19.67
5 or more	14.53	13.33	13.55	10.71	14.32	14.06	12.42	9.38	13.76	9.35	18.67	7.69	10.32	14.44	10.85	14.75
Education								*		*			***			
GED or less	29.06	36.00	9.52	12.50	21.35	20.31	15.45	26.56	7.03	13.08	30.67	53.85	4.13	4.28	7.23	4.10
High school	35.04	24.00	35.90	32.14	41.62	42.19	36.97	21.88	32.57	37.38	37.33	38.46	19.87	27.81	36.17	39.34
Vocational	11.11	20.00	12.45	8.93	18.38	20.31	16.36	17.19	12.84	15.89	14.67	7.69	7.23	12.83	12.48	12.30
Business or professional	14.10	10.67	18.32	23.21	9.46	7.81	16.97	17.19	16.21	12.15	4.00	0.00	14.45	13.90	18.44	14.75
Bachelor's, master's, or doctorate	10.68	9.33	23.81	23.21	9.19	9.38	14.24	17.19	31.35	21.50	13.33	0.00	54.32	41.18	25.68	29.51

	City of Phoenix (309)		Maricopa County (329)		Bridgeport (434)		Jacksonville (394)		Atlanta (761)		Northeast Georgia (88)		Northern Cook County (962)		Charlotte (675)	
	R	NR	R	NR	R	NR	R	NR	R	NR	R	NR	R	NR	R	NR
Earnings											**					
None	13.25	12.00	9.52	16.07	17.03	21.88	5.45	4.69	8.41	6.54	2.67	15.38	13.94	17.11	11.21	13.11
Under $4,000	12.39	13.33	5.49	7.14	18.38	26.56	11.52	7.81	10.40	9.35	14.67	46.15	7.23	10.70	14.47	13.93
$4,000-$15,000	25.64	32.00	25.27	26.79	36.76	34.38	30.00	26.56	22.02	22.43	33.33	7.69	14.97	16.04	31.65	22.95
$15,000-$30,000	27.35	25.33	32.60	21.43	19.46	15.63	31.52	32.81	24.31	29.91	36.00	23.08	24.65	26.74	24.23	28.69
$30,000-$50,000	14.96	10.67	17.58	19.64	7.57	1.56	14.85	20.31	21.87	25.23	12.00	7.69	19.61	16.04	11.75	14.75
Over $50,000	6.41	6.67	9.52	8.93	0.81	0.00	6.67	7.81	13.00	6.54	1.33	0.00	19.61	13.37	6.69	6.56
Work Limitation																
No	93.16	88.00	94.14	96.43	96.22	96.88	90.00	93.75	97.25	97.20	97.33	92.31	96.00	96.26	95.48	96.72
Yes	6.84	12.00	5.86	3.57	3.78	3.13	10.00	6.25	2.75	2.80	2.67	7.69	4.00	3.74	4.52	3.28
Assistance									*							
No	76.50	78.67	94.87	91.07	64.05	60.94	91.52	90.63	87.92	81.31	86.67	69.23	96.26	97.33	79.57	82.79
Yes	23.50	21.33	5.13	8.93	35.95	39.06	8.48	9.38	12.08	18.69	13.33	30.77	3.74	2.67	20.43	17.21
Working Now																
No	90.60	93.33	98.90	98.21	75.41	76.56	82.73	78.13	92.05	96.26	98.67	100.00	99.35	100.00	90.24	90.16
Yes	9.40	6.67	1.10	1.79	24.59	23.44	17.27	21.88	7.95	3.74	1.33	0.00	0.65	0.00	9.76	9.84
Months Worked Last Year					***											
None	12.39	12.00	10.26	17.86	17.03	23.44	5.45	4.69	9.02	4.67	4.00	15.38	11.35	13.37	11.57	14.75
0-3	13.68	8.00	10.99	16.07	14.59	31.25	9.39	7.81	13.61	12.15	17.33	23.08	14.58	14.44	17.54	13.93
3-6	17.09	25.33	22.71	28.57	21.62	14.06	17.58	15.63	21.56	23.36	22.67	30.77	20.39	22.46	23.87	22.95
6-9	24.79	30.67	28.57	16.07	23.78	14.06	26.36	31.25	29.20	25.23	22.67	0.00	23.61	22.99	25.68	25.41
9-12	32.05	24.00	27.47	21.43	22.97	17.19	41.21	40.63	26.61	34.58	33.33	30.77	30.06	26.74	21.34	22.95
Treatment			*													
Treatment 1	35.47	34.67	32.23	37.50	32.43	39.06	36.06	31.25	34.10	32.71	34.67	23.08	33.03	34.22	34.36	28.69
Treatment 2	32.91	30.67	34.43	44.64	32.70	29.69	31.82	37.50	34.25	26.17	30.67	38.46	34.19	31.55	31.10	37.70
Treatment 3	31.62	34.67	33.33	17.86	34.86	31.25	32.12	31.25	31.65	41.12	34.67	38.46	32.77	34.22	34.54	33.61
Dislocated Worker			**													
No	31.20	40.00	25.64	39.29	54.86	59.38	36.97	42.19	18.35	25.23	58.67	76.92	12.65	12.30	27.12	21.31
Yes	68.80	60.00	74.36	60.71	45.14	40.63	63.03	57.81	81.65	74.77	41.33	23.08	87.35	87.70	72.88	78.69
Sampling Stage	**												***			
First	72.22	84.00	68.13	73.21	68.38	62.50	86.97	87.50	100.00	100.00	100.00	100.00	86.84	94.12	83.54	77.87
Second	27.78	16.00	31.87	26.79	31.62	37.50	13.03	12.50	n.a.	n.a	n.a	n.a.	13.16	5.88	16.46	22.13

Note: */**/***: The *p*-values for Fisher's Exact test was significant at the .10/.05/.01 level.

n.a. = not applicable; NR = nonrespondents; R = respondents.

Appendix B

Ensuring that the Weights Sum to the Population Total. To compute final survey weights, we ratio-adjusted the preliminary weights to ensure that, within strata defined by site, approach, and dislocated/adult worker status, the final weights added up to the population total. The following poststratification adjustment was thus made to each customer's weight:

$$Adj_{Poststratification,cell} = \frac{\text{Population Count}_{Post}}{\text{Weighted Number of Respondents}_{Post}}.$$

The final weight, a combination of the base sampling weight, the unlocated adjustment, the nonresponse adjustment, and the poststratification adjustment, was thus calculated as:

$$W_{Final,i,cell,post} = W_{sampling} * Adj_{Unlocated,cell} * Adj_{Nonresponse,cell} * Adj_{Poststratification,post}.$$

2. IMPUTING VALUES FOR ITEM NONRESPONSE

This section describes how we dealt with *item* nonresponse—nonresponses to particular survey questions in each of the two follow-up surveys.

a. Overview of Imputation Strategy

There are very few missing data as a whole. When data are missing, however, our strategy to include people with missing items in the analysis depended upon the type of data item that was missing. When the item was a reported outcome that was independent of other reported items and item nonresponse was small, we simply excluded that person from the analysis. When the item was a covariate or a single component of a constructed outcome of interest, or could simply be replaced with a reasonable substitute, we imputed the data. For example, one simple imputation procedure we used was to assign the 15th as the day of the month when the day was the only information missing from a reported date.[4]

For covariates, it was important that we include all data for each sample member—otherwise, we would need to drop that sample member from all analyses. Hence, for most covariates, we imputed the value based on the mean of the observed data (for continuous covariates) or the most common value (for categorical variables). For the race/ethnicity variables, we included nonresponders in the "other" category.

For missing employment, earnings, and training outcomes that were constructed from multiple data items, however, we used a hot-deck procedure (described below) to impute missing data for the episode instead of omitting the episode with missing data from the

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[4] The exceptions to this were if it would cause a conflict with observed data. If a job or training episode was reported to have started and ended in the same month, but the days were not reported, we imputed values by assigning the 10th of the month for the missing start day and the 20th for the missing end day. Another example is if a customer reported starting a job on March 23, 2003, which would make an end date of the 15th impossible. In such cases we imputed the end day as being halfway between the reported start day and the end of the month.

sample member's outcomes.[5] The first reason is that when performing analysis on constructs that use multiple data items, omitting from a construct sample members with any items missing would be equivalent to assuming that the value of the missing construct is equal to the overall mean of the observed data.[6] However, we often know, based on other nonmissing construct components, that sample members' values are not equal to the overall mean, so omitting them would produce biased results. For example, when analyzing quarterly earnings, excluding a sample member who has missing hours worked per week but who reports being employed and specifies an hourly wage would produce biased estimates on earnings, since employed workers have higher earnings than nonemployed workers. A second reason is that there is a relatively high rate of missing data for constructed outcome variables because they are created using many survey "building-block" data items. For example, quarterly earning constructs require job start date, job end date, hourly wages, and hours worked per week. If we were to exclude earnings constructs with any missing information, a missing month would lead to missing employment and earnings data for that job.

We chose to impute the building-block data items rather than the composite outcome variables—such as earnings by quarter—because this made use of all the information we had, and so we imputed the minimum amount of information necessary to construct the outcome variables. For example, suppose a customer worked two jobs after random assignment. All relevant information is available for the first job, but for the second job, we know only that the end date was September 5, 2004, and that the start date was sometime in 2004, but the start month and day were not given. Our procedure will impute the start month as sometime between January and August. The full information on the first job can then be used, along with the reported earnings and end date for the second job and the imputed start date, in constructing the earnings and employment history for that customer. A procedure that imputed only the constructed earnings and employment outcome variables would not easily allow this full use of all available reported information.

We present in two different ways the percentage of missing values that were hot-decked. Table B.3 reports the number of job or training episodes with item nonresponse that required hot-deck imputation for each specific item. Since a person can have multiple jobs and trainings, one individual can contribute multiple episodes, but people with no episodes are excluded from the table. The table provides an overall sense of the amount of imputations that were needed for the item constructs. The relatively high percentage of hot-decking required for job end dates was due mostly to the matching of jobs across the two surveys. For jobs that were ongoing at the time of the 15-month follow-up survey, the end date had to be imputed if a match with a reported job in the long-term follow-up could not be made.

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[5] There are a few exceptions. The timing of job episodes was critical for the definition of our outcomes. We excluded from the analysis 11 people who reported one or more employment episodes that had no beginning or end date, since their jobs could not be reasonably attributed to any time period. Also, training episodes that had timing information completely missing (no reported information on start or end of training) were assumed to have taken place during the first three years of follow-up. However, outcomes involving the timing and duration of these trainings were excluded from the analysis.

[6] Excluding data also affects the estimated standard errors, which would be smaller if the individual were included at the mean value.

Appendix Table B.3. Episodes with Variables Imputed Using the Hot-Deck Procedure for Item Nonresponse

	Percentage of Item Nonresponse[a]			
Variable	Structured Choice	Guided Choice	Maximum Choice	Overall
Job Start Month	3.0	3.5	3.1	3.2
Job Start Year	0.8	0.7	0.6	0.7
Job End Month[b]	17.4	18.6	18.7	18.2
Job End Year[b]	16.3	17.0	17.2	16.9
Hours Worked per Week at Job	1.5	1.2	1.4	1.4
Earnings at Job	6.9	7.7	6.8	7.1
Union Status at Job	0.4	0.2	0.3	0.3
Health Insurance Received at Job	0.9	1.0	0.6	0.8
Paid Time Off at Job	0.8	0.7	0.8	0.7
Retirement Benefits at Job	2.0	1.4	2.1	1.8
Training Program Start Month[c]	5.5	5.5	3.8	4.9
Training Program Start Year[c]	1.8	1.1	0.6	1.2
Training Program End Month[c]	4.1	4.3	3.2	3.9
Training Program End Year[c]	1.6	1.3	0.6	1.1
Training Program Cost[d]	22.0	22.7	27.2	23.9

[a]Indicates the percentage of employment/training episodes in the full sample with missing data on the item. We exclude people with no episodes. There are a total of 9,768 job episodes from the two surveys combined, 2,462 training episodes from the 15-month follow-up survey, and 2,423 from the long-term follow-up survey.

[b]All end date values are influenced by jobs that were ongoing at the time of the 15-month follow-up that could not be matched to jobs reported in the long-term follow-up survey.

[c]Training period dates were imputed only for those reported in the 15-month follow-up. The reported percentages are based on training episodes from that survey.

[d]All item nonresponse for training costs is from the long-term follow-up survey, since it is the only one that asked customers to report training costs. The reported percentages are based on training episodes from that survey.

Table B.4 reports the percentage of people with any hot-decked value in the creation of one of their constructs. Here we count people with no job or training episodes as not requiring hot-decking, because constructed outcomes for these people are still well defined. Comparing the two tables clarifies the importance of imputation for constructed variables. For example, only 17 to 18 percent of all job episodes required hot-decking, but nearly 50 percent of people had a job episode that required hot-decking for a job end date. Large gaps in these people's employment histories would have occurred had the various components of the job characteristics not been imputed. Importantly, the rates of item nonresponse are similar across the three approaches. Hence, the imputation procedures are unlikely to create bias in the impact estimates.

Appendix Table B.4. Individuals with Variables Imputed Using the Hot-Deck Procedure for Item Nonresponse

	Percentage of Item Nonresponse[a]			
Variable	Structured Choice	Guided Choice	Maximum Choice	Overall
Job Start Month	7.2	7.9	6.7	7.3
Job Start Year	2.3	1.8	1.7	1.9
Job End Month[b]	46.5	46.6	49.3	47.5
Job End Year[b]	45.1	45.1	47.4	45.9
Hours Worked per Week at Job	3.8	3.3	4.1	3.8
Earnings at Job	14.9	15.5	13.8	14.7
Union Status at Job	1.1	0.6	0.9	0.9
Health Insurance Received at Job	2.4	2.6	1.9	2.3
Paid Time Off at Job	2.1	1.8	2.0	1.9
Retirement Benefits at Job	4.6	3.9	5.7	4.7
Training Program Start Month[c]	3.9	3.5	2.6	3.3
Training Program Start Year[c]	1.4	0.7	0.4	0.8
Training Program End Month[c]	2.7	2.8	2.1	2.5
Training Program End Year[c]	1.1	0.8	0.4	0.8
Training Program Cost[d]	11.5	11.8	13.1	12.1

[a]Indicates the percentage of people in the full sample with any missing data on the item. People with no job/training episodes are included as not missing the variable, since their outcomes are still well defined. A total of 3,253 people had defined job outcomes, and 3,264 had defined training outcomes.

[b]All end date values are influenced by jobs that were ongoing at the time of the 15-month follow-up and could not be matched to jobs reported in the long-term follow-up survey.

[c]Training period dates were imputed only for those reported in the 15-month follow-up. The reported percentages are based on training episodes from that survey, though the population considered is the full analysis sample.

[d]All item nonresponse for training costs is from the long-term follow-up survey, since this is the only one that asked customers to report training costs.

b.   Hot-Deck Imputation Procedure

We chose a hot-deck procedure for this analysis because it accommodates the imputation of plausible values given a set of constraints. This is important when imputing dates; we can ensure, for example, that the end date for a job must be after the start date. These constraints would be difficult to implement using other imputation approaches, such as a model-based or mean-imputation procedure (Little and Rubin 2002).

The hot-deck procedure is implemented separately for each variable. The procedure randomly selects an individual with a nonmissing value for the variable (the "donor") and matches the person to an individual with a missing value for the variable (the "recipient") based on a set of additional variables for which the donor and recipient have similar values. The donor's observed value on the variable of interest is then imputed for the missing value for the recipient. A sequential nearest-neighbor hot-deck procedure was implemented using a SAS macro described in Carlson et al. (1995).

The hot-deck procedure first groups survey respondents into mutually exclusive groups of people who all share the same values for a set of categorical matching variables. Within these groups, individuals are ranked according to a different set of sorting variables, some of which may be continuous.[7] Based on these rankings, a donor is chosen for each recipient. Because all matching variables considered in this application are categorical, the procedure will essentially choose as a donor a random individual who has the same values on all matching variables and similar values on all sorting variables as the recipient.

The different timing of the employment episodes reported in the 15-month and the long-term follow-up survey necessitated two slightly different procedures when imputing employment variables. The differences are based on the categorical variables that were used for matching as well as the variables that were used for sorting. The long-term follow-up survey had many more reported job episodes, which allowed greater flexibility when determining the mutually exclusive groupings, and the potential length of the job episodes in the long-term survey required more precise groupings for when jobs could take place, to disallow for censoring of jobs with potentially long durations. For both surveys, the matching variables were tailored based on what was known about the episode. For example, some imputations used start month or year, others used end month or year, others a combination of start and end characteristics (if only months were missing). In some cases, imputations were based on durations rather than specific dates.

For the 15-month follow-up survey, where missing dates for training episodes were imputed (as well as for jobs), potential donors all had the same values as the recipient on the following variables, with priority in the following order[8]:

1.   Approach

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[7] Sorting variables are distinct from categorical variables in that they are sorted according to level of importance and may also be measured as continuous variables. When a chosen categorical variable creates groupings of a small number of people, that variable can be used as a sorting variable to increase cell size.

[8] For some imputations, this list was modified if there were an insufficient number of donors available given the full set of matching variables.

2. Dislocated/adult worker status
3. State or grantee
4. Nonmissing month/year of start/end date for episode with missing information (if possible)
5. Two-digit job or training occupation code (for hours, earnings, and training dates)

For the long-term follow-up survey, potential donors all had the same values as the recipient on the following variables, with priority in the following order[9]:

1. Full-/part-time job (except for imputation of job hours)
2. Approach
3. Nonmissing month/year of start/end date for job with missing information (if possible)

While sorting, variables were determined by:

1. Dislocated/adult worker status
2. State or grantee
3. Two-digit job occupation code

For new training programs reported in the long-term follow-up, we assigned training only to certain starting periods instead of imputing start and end dates. This was because we were more interested in analyzing when training occurred and less interested in the duration of the training. However, the reported training costs in the long-term follow-up were needed in order to perform the benefit-cost analysis. For these cost variables, potential donors all had the same values as the recipient on the following variables:

1. Approach
2. Type of training provider (private vendor, community college, etc.)
3. Training duration (which we used as a sorting variable)

These matching and sorting variables were chosen because they are believed to be strongly associated with the job and training program characteristics of interest. For the 15-month follow-up survey, job and training episodes were imputed separately depending on the order in which they were reported. However, given the large pool of job episodes in the long-term follow-up, all job episodes were combined and imputed together.

Maintaining consistency is complicated when imputing dates. For this reason, for job episodes imputed from the 15-month follow-up, we did the imputations of dates in the order of days, years, and months. That still resulted in a few inconsistencies between the months and years, such as imputed start dates after imputed end dates, which we corrected either (1) by redoing individual imputations (by constraining the imputation to ensure that start dates came before end dates), or (2) by imposing another correction (such as adjusting an imputed end date that fell after the interview date).

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[9] In some instances, these matching variables were tailored depending on what was known about the episode. For example, for some imputations, start date was used, and for others, end date was used.

For the long-term follow-up, in many circumstances the imputation procedure took the approach of imputing employment durations and then calculating the date the job would end or begin, given the imputed duration. This was done using various constraints on the job to be imputed, such as not allowing a full-time job to extend beyond a date when another full-time job was reported to have started.

To ensure that the imputations were reasonable, we implemented a series of checks that involved examining the individual imputations of the building-block variables as well as examining the outcome variables constructed from the building blocks. These checks included:

- Examining the implied quarterly earnings for each individual with imputed data, to ensure that the imputations did not result in extreme outliers, or imposing our top-coding (discussed below) to those outliers

- Examining whether people in different ITA approaches required varying levels of hot-decking

- Examining the length of time from random assignment until the time the surveys were taken across the ITA approaches (because matching variables were sensitive to the timing of the reported job episode since random assignment)

- Comparing the distributions of quarterly earnings for people with imputed data and people with complete data and confirming that any differences observed were reasonable and not due to inappropriate imputations

- Comparing the distributions of duration in training for people with imputed data and people with complete data and confirming that any differences observed were reasonable and not due to inappropriate imputations for the 15-month follow-up survey

Discrepancies found as a result of these checks resulted in fine-tuning of the imputations to ensure their consistency and appropriateness.

3. TREATMENT OF OUTLIERS

Sometimes reported values did not seem reasonable. The survey-based variables that appeared to have some outliers were household income, total number of hours worked each week, earnings reported, and training costs reported. Based on its distribution, we top-coded household income at $125,000 in 2002 dollars, which was above the 95th percentile. When a person reported working more than 99 hours per week across all jobs, we capped the hours at 99. Although this was an extremely high number of hours per week, people who reported these values typically did not sustain such high weekly hours for very long. Across all reported jobs, when taking the maximum reported hours over a person's employment history, 99 hours per week represented the 97th percentile. When hours worked per week exceeded 99, in order to include earnings from all jobs, we adjusted earnings downward across all jobs to reflect a 99-hour work week.

There were also situations when reported wages were too high or too low. When someone not self-employed reported a job that paid $0, we excluded this job episode from the person's work history.[10] We did not exclude job episodes that reported a $0 wage if the person was self-employed. All wages were then bottom-coded at $2.50 in 2002 dollars. We also set a top code on hourly wages of $55 in 2002 dollars, which was at the 99th percentile of reported hourly wages and is about three standard deviations above the mean.

In the long-term follow-up, there were instances of reported training costs that did not seem reasonable based on the type of provider. Based on the distribution of training costs reported by provider type, we applied the following top codes for total training costs by the following providers:

1. Private vendor = $12,936
2. Community college = $22,000
3. Vocational training = $19,297
4. Four-year college = $56,760
5. Other = $17,180

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[10] Some examples of these "jobs" were volunteer positions that some people held.

APPENDIX C

ESTIMATION OF IMPACTS, STANDARD ERRORS, AND NET BENEFITS

This appendix describes how we estimated the relative impacts of the three ITA approaches. Because customers were randomly assigned to the three approaches, a simple difference in the mean outcome measures for customers in two approaches provides an unbiased estimate of the impact of one approach versus another. However, we estimated the impacts using a regression model, both to increase precision and to adjust for chance differences in the characteristics of customers in the three approaches.[11] The model used is described in detail below.

1. REGRESSION MODEL FOR ESTIMATING OVERALL IMPACTS OF THE THREE APPROACHES

a. Form of the Model

Our estimates of the relative impacts of the three approaches are based on a comparison of customers randomly assigned to one of the three approaches with customers randomly assigned to another approach. In presenting the model, we refer to Structured Choice, Guided Choice, and Maximum Choice as Approach 1, Approach 2, and Approach 3, respectively. To compute the relative impacts of each approach, we estimated a statistical model that predicts the outcome of interest as a function of approach, site, and a set of background characteristics, detailed below. The basic form of the model is:

$$y_i = \sum_{s=1}^{8} \beta_s S_{si} + \sum_{s=1}^{8} \beta_{1s} S_{si} A_{1i} + \sum_{s=1}^{8} \beta_{3s} S_{si} A_{3i} + \delta X_i + \varepsilon_i, \tag{C.1}$$

where

y_i is the outcome of interest

S_{si} equals 1 if customer i was in site s and 0 if not

A_{1i} equals 1 if customer i was in Structured Choice (Approach 1) and 0 if not

A_{3i} equals 1 if customer i was in Maximum Choice (Approach 3) and 0 if not

X_i is a vector of baseline characteristics of customer i

ε_i is a random error term that captures the impacts of unobserved factors that influence the outcome. It is assumed to have a mean of zero conditional on {A}, {X}, and {S}

The β and δ terms are parameters or vectors of parameters to be estimated

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[11] Appendix D presents results from a sensitivity analysis that estimates impacts using differences-in-means rather than using regression models. The results do not differ much.

The regression models are estimated using weights to account for the sampling design and unit survey nonresponse (see Appendix A).

b. Estimation of Impacts

The parameters of greatest interest are β_{1s} and β_{3s} because they show the impact on customers of being in Approach 1 (or 3) in site s, relative to being in Approach 2. These parameters can thus be interpreted as the causal impact of being assigned to Approach 1 (or 3) rather than being assigned to Approach 2, in site s. The β_{1s} and β_{3s} terms provide the estimates of the relative impacts of Approach 1 (or 3) versus Approach 2 within each site. The relative impact of Approach 1 versus Approach 3 in site s is obtained by computing $\tau_{13s} = \beta_{1s} - \beta_{3s}$. Thus, within each site (s=1 to 8) we obtain three impact estimates:

$$\tau_{12s} = \beta_{1s}$$
$$\tau_{32s} = \beta_{3s}$$
$$\tau_{13s} = \beta_{1s} - \beta_{3s}$$

To obtain the average impact across all sites, we computed a weighted average of the impacts in each site, where the weight is denoted by W_s:

$$\tau_{12} = \sum_{s=1}^{8} W_s \beta_{1s}$$
$$\tau_{32} = \sum_{s=1}^{8} W_s \beta_{3s}$$
$$\tau_{13} = \sum_{s=1}^{8} W_s (\beta_{1s} - \beta_{3s})$$

The site weights used in the above formulas are the proportion of customers in each site. This is equivalent to pooling all customers across sites and weighting each customer equally, regardless of site of origin. Our rationale for pooling across sites is based on three factors: (1) all sites were asked to implement the same three approaches; (2) the implementation of the three ITA approaches was similar across our study sites; (3) while the contextual factors do vary across the sites, we saw them as having had a limited influence on the outcomes of ITA study participants by approach. Appendices E through G present the results separately by site, and Appendix D presents results obtained when sites are weighted equally.

c. Choice of Linear Regression

For all outcomes we estimate the parameters in Equation C.1 using ordinary least squares, which models the outcome as a linear function of the predictors. An alternative would have been to use logistic regression for binary outcomes such as employment status. Logistic regression models the "log odds of success" as a linear function of the predictors:

$$g(\pi_i) = \log(\frac{\pi_i}{1 - \pi_i}) = \beta X_i + e_i, \text{ where } \pi_i = E(y_i).$$

Appendix C

We chose to use linear regression rather than a logistic regression for all binary outcomes for a few reasons. The first was simplicity of both analysis and presentation. There is not a standard way of estimating or presenting standard error estimates for impacts estimated using logistic regression, whereas the calculation and presentation is very straightforward using linear regression. Second, during the first analysis of binary outcomes using the 15-month follow-up survey, a series of sensitivity analyses concluded that linear and logistic regressions led to nearly identical estimates and statistical inference for most binary outcomes and no meaningful differences (McConnell et al. 2006).

d. Regression Predictors

The predictors included in the regression model (the X variables in Equation C.1) were demographic characteristics (age, sex, race/ethnicity), marital status, presence of children, education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline and earnings in 12 months prior to baseline). These were selected using preliminary investigation of variables predictive of outcomes using a stepwise variable selection procedure (Neter et al. 1996), as well as substantive knowledge.

e. Estimating Subgroup Impacts

A slight simplification to the model was used when estimating impacts for subgroups of customers, such as dislocated workers or adult workers. In particular, to allow efficient estimation of the parameters of key interest for subgroups—the overall impact across all sites for each subgroup—we do not include site indicators in the model when estimating subgroup impacts. Including the site indicators and interactions with the subgroup indicator would greatly increase the number of parameters in the model and may result in less precise estimation of the overall subgroup impacts. The model used for subgroups is thus:

$$(C.2) \qquad y_i = \beta_1 A_{1i} + \beta_2 A_{2i} + \beta_3 A_{3i} + \gamma_0 G_i + \gamma_1 G_i A_{1i} + \gamma_3 G_i A_{3i} + \delta X_i + \varepsilon_i,$$

where the variables are defined as above, and $G_i = 1$ if customer i is in group G and equals 0 otherwise. The relative impacts for subgroup G are calculated as:

$$\tau_{G=1,12} = (\beta_1 - \beta_2) + \gamma_1$$
$$\tau_{G=1,32} = (\beta_3 - \beta_2) + \gamma_3$$
$$\tau_{G=1,13} = (\beta_1 - \beta_3) + \gamma_1 - \gamma_3$$

Similarly, the impacts for customers not in subgroup G (G=0) are:
$$\tau_{G=0,12} = (\beta_1 - \beta_2)$$
$$\tau_{G=0,32} = (\beta_3 - \beta_2)$$
$$\tau_{G=0,13} = (\beta_1 - \beta_3)$$

Tests of whether the impacts differ for customers who are and are not in subgroup G were conducted by taking the difference of the above impacts for those in subgroup G minus the impacts for those not in subgroup G.

Appendix C

The subgroups for which we estimate the relative impacts of the three approaches (results in Appendices E-J) are based on:

1. Dislocated workers versus adult workers
2. Education: customers with at most versus more than a high school degree
3. Customers with versus without a vocational certification at the time of random assignment
4. Age: customers over versus under age 40
5. Sex: female versus male customers
6. Race/ethnicity: nonminority customers (white non-Hispanic) versus minority (black, Hispanic, Asian, other) customers

2.   CALCULATING STANDARD ERRORS

To determine whether impact estimates are statistically significant, we computed standard errors that account for the study's sample design and, in particular, for the clustering of customers within sites. For outcomes from the survey, we use regression procedures for complex survey data that calculate correct standard errors given the sampling and nonresponse weights (described in Appendix A) and the clustering of customers in sites (Brogan 1998).[12] For outcomes based on the full population of customers—such as from the UI wage records or the STS—we used the same procedure but did not use the individual weights, since we did not need to account for survey sampling or survey nonresponse.

The calculation of standard errors reflects the fact that the ITA sites were chosen purposively, not randomly. Sites had to be willing and had to apply to participate in the experiment, and so are not nationally representative. The results thus generalize only to the set of sites in this study, and not to a broader population.

3.   CALCULATING NET BENEFITS

The estimation of net benefits requires the addition of costs at the time of program implementation with benefits that accrue over time. For each benefit type, impacts had to be summed under the assumptions discussed in Chapter VIII. To include impacts over time, we used the following formula to add impacts over time for each benefit type:

$$\sum_{q=1}^{22} \frac{\beta_q}{(1+r)^{\text{floor}\left(\frac{q-1}{4}\right)}} + \beta^* \sum_{q=23}^{4(R-42)} \frac{1}{(1+r)^{\text{floor}\left(\frac{q-1}{4}\right)}},$$

Where

- β represents impacts on a given benefit in quarter q,
- β^* represents impacts in each quarter from Quarter 23 until the time of retirement,

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[12] Specifically, we used the "svy" command in Stata 10 to estimate the model, and the "lincom" command to perform significance tests of linear combinations of the coefficients, such as to calculate the overall impact across all sites, or the relative impact of Approach 1 versus Approach 3.

- *r* is the selected discount rate, and
- *R* is the selected age of retirement, and 42 is subtracted from this value because it represents that benefits are set up to capture the customer with the median age at program entry.

APPENDIX D

SENSITIVITY ANALYSES

To assess the robustness of our impact estimates to different estimation procedures and assumptions, we conducted a series of sensitivity analyses. We first identified primary outcomes of interest and then estimated the impacts of switching from Guided Choice to one of the other approaches under different assumptions. Appendix Table D.1 summarizes the findings by presenting the benchmark impact estimates in the "Benchmark" column along with the following sensitivity analyses:

1. Conducting an unweighted analyses
2. Estimating impacts without using regression adjustment
3. Estimating impacts with sites weighted equally

1. UNWEIGHTED ANALYSES

For all outcomes constructed using the survey data, the main impacts presented in the text are estimated using weights that adjust for the survey sampling probabilities and survey nonresponse as described in Appendix B. To assess the effect of this weighting, we also estimated impacts for the survey-based outcomes without any weights. Those results are presented for key outcomes in the "Unweighted" column of Appendix Table D.1.

The results are similar to those in the main analyses that use weights; the magnitudes and significance levels change only slightly. For example, when switching from Guided Choice to Maximum Choice, all the impacts with significant differences maintain significant differences, but two of the training outcomes move from one significance level to the next. The estimated impacts themselves are very similar across the weighted and unweighted analyses.

2. WITHOUT REGRESSION ADJUSTMENT

We also estimated impacts without any covariates in the regression models. This is equivalent to calculating simple differences in means of the outcomes between the approaches, with no adjustments for covariates. The results from this analysis are presented for key outcomes in the column "No Regression Adjustment" in Appendix Table D.1. The results again are very similar to those in the main analyses, which indicates that the regression adjustment did not substantially affect the estimates.

Appendix Table D.1 Sensitivity of Impacts on Primary Outcomes of Switching from Guided Choice to Another Approach

	Switch to Structured Choice				Switch to Maximum Choice			
	Benchmark	Unweighted	No Regression Adjustment	Sites Weighted Equally	Benchmark	Unweighted	No Regression Adjustment	Sites Weighted Equally
Training Outcomes[a]								
Attended Training Program (%)	2	2	2	1	5***	4**	5***	6**
Weeks in Training Program	2	2	2	1	2	1	2	1
Completed a Training Program (%)	4**	4**	5**	5*	6***	5**	6***	8***
Labor Market Outcomes During Final Two Years of Follow-up[b]								
Percentage of Quarters Employed	1	0	1	-1	1	1	1	2
Average Quarterly Earnings	522**	470**	597**	602**	254	313	237	381
Employed in Occupation of Training[a]	5***	5***	6***	6**	2	2	2	5*
Well-Being and Self-Sufficiency Outcomes During Final Year of Follow-up[c]								
Household Income ($)	1,019	570	1,653	1,393	-796	-1,170	-876	-1,001
Household Income Below the Poverty Line	0	1	0	1	0	1	0	1
Received Unemployment Insurance[d]	0	-1	-1	0	-1	-1	-1	-3
Received Food Stamps or Cash Assistance[d]	-1	0	-1	0	1	2	1	2

Sources: 15-month follow-up and long-term follow-up survey.

Notes: The impacts are based on a comparison of means which were regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

[a]Training outcome measures are defined for training that started within the first three years of follow-up.

[b]The final two years of follow-up are defined as eight 13-week quarters immediately preceding the interview date of the second follow-up survey. The second follow-up survey was collected from August 6, 2009, through May 26, 2010.

[c]The final year of follow-up is defined as the 12 months immediately preceding the date of the second follow-up survey.

[d]Receipt of unemployment insurance, food stamps, or cash assistance is based on reports of receipt by anyone in the household.

*** / ** / * Statistically significant positive impact at the .01/.05/.10 level.

Appendix D

3. WEIGHTING SITES EQUALLY

The final sensitivity analysis we conducted was to weight sites equally in computing the overall impacts, rather than weight by the number of customers in each site. Appendix Table D.2 presents the weights used to calculate overall impacts from the impacts by site in the main analysis and when each site is weighted equally. The results from these analyses are presented for key outcomes in the column "Sites Weighted Equally" in Appendix Table D.1.

Appendix Table D.2 Site Weights (Percentages)

	Sites Weighted by Size (Main Analysis)	Sites Weighted Equally (Sensitivity Analysis)
Phoenix	8.2	12.5
Maricopa County	8.5	12.5
Bridgeport	13.0	12.5
Jacksonville	9.8	12.5
Atlanta	17.8	12.5
Northeast Georgia	2.2	12.5
North Cook County	22.8	12.5
Charlotte	17.7	12.5
Total	**100**	**100**

Most findings are not sensitive to how the sites are weighted. There are mostly only small changes in magnitude and levels of statistical significance, but there is one difference where an outcome that was not statistically significant in our main analysis was marginally significant at the 10 percent level in the sensitivity check: for those switching from Guided Choice to Maximum Choice, customers were more likely to be employed and trained in the same occupation when sites are weighted equally.

APPENDIX E

SUPPLEMENTAL TABLES ON TRAINING OUTCOMES (CHAPTER V)

Appendix Table E.1. Impacts on Participation in Training

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Attended Training Program (percentages)						
Within 3 years of RA	73	71	77	2	5***	-3*
Starting at least 3 years after RA	23	24	23	-1	-0	-1
Weeks in Training						
Within 3 years of RA	31	29	30	2	2	1
After 3 years since RA	19	19	19	0	-0	0
Sample Size	**1,105**	**1,081**	**1,078**			

Sources: 15-month follow-up survey and long-term follow-up survey.

Notes: The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

Because the outcomes presented could not be defined for some customers, the sample size ranges are
A1: 1,092 to 1,105
A2: 1,064 to 1,081
A3: 1,056 to 1,078

RA = random assignment.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Appendix Table E.2. Differences in Timing and Length of Training Among Those Who Trained

	Means			Conditional Differences		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Weeks Until First Training Entry[a]:	20	18	17	2	-1	3*
Number of Weeks in Training						
Within 3 years of RA	31	29	30	2	2	1
After 3 years since RA	19	19	19	0	-0	0
Sample Size	**1,092**	**1,064**	**1,056**			

Sources: 15-month follow-up survey and long-term follow-up survey.

Notes: Means were computed using only people who participated in any training. Because these are nonrandom samples of the full groups, differences in means across approaches cannot be interpreted as the impact of one approach as compared with another.

The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

Because the outcomes presented could not be defined for some customers, the sample size ranges are
A1: 799 to 1,092
A2: 757 to 1,064
A3: 798 to 1,056

[a]If a person was in training at the time of random assignment, weeks until first program entry is 0.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

RA = random assignment.

Appendix Table E.3. Impacts on Reasons for Not Participating in Training

Reason[a]	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Got a Job or Looking for a Job	7	9	6	-2*	-3***	1
Financial Reasons/ Insufficient Funding	4	4	4	-0	0	-1
Not Interested in Training	3	1	1	1**	-0	2***
Personal Reasons	2	1	1	0	0	0
No Available Programs	1	1	2	-1	0	-1
Other	1	1	1	-0	0	-0
Problems with Counseling	1	1	1	0	-0	1
Unaware of Program	1	1	1	-0	-0	0
Did Not Get into a Program	1	1	1	-0	0	-0
No Suitable Program	0	1	0	-0	-0	0
Timing Too Late/Too Long	0	1	0	-0	-0	0
Decided Training Not Worthwhile	0	0	0	0	0	0
Sample Size	**1,105**	**1,081**	**1,078**			

Sources: 15-month follow-up survey and long-term follow-up survey.

Note: The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

[a]People who participate in training are assigned values of 0.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Appendix Table E.4. Impacts on Sources of Funding for Training

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Participated in ITA-Funded Training[a]	59	56	62	2	6***	-4*
Other Funding Sources[a]						
Personal savings	21	25	25	-4**	-0	-4**
Student loan	8	10	10	-2*	-1	-2
Need-based financial aid	11	11	13	0	2	-2
Other	14	15	14	-1	-1	-0
Sources Other than an ITA Paid for All Training[a]	15	15	14	-0	-1	1
Sample Size	**1,105**	**1,081**	**1,078**			

Sources: 15-month follow-up survey and long-term follow-up survey.

Notes: Sources of funding for training within the first 3 years of a person's follow-up period that are reported for any of their training episodes are included.

The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

[a]People who did not participate in training are assigned values of 0.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Appendix Table E.5. Differences in Sources of Funding for Training Among ITA Customers Who Participated in Training

	Means			Conditional Differences		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Participated in ITA-Funded Training	79	78	80	1	3	-2
Other Funding Sources						
Personal savings	28	34	32	-7***	-2	-4*
Student loan	11	14	12	-3*	-1	-1
Need-based financial aid	16	15	17	1	2	-2
Other	19	21	18	-2	-3	1
Sample Size	**812**	**773**	**819**			

Sources: 15-month follow-up survey and long-term follow-up survey.

Notes: Sources of funding are included if a customer reported funding from the source for any of their training episodes. Means were computed using only people who participated in any training within the first 3 years of follow-up. Because these are nonrandom samples of the full groups, differences in means across approaches cannot be interpreted as the impact of one approach as compared with another.
Sources of funding for training within the first 3 years of a person's follow-up period are included.

The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Appendix Table E.6. Impacts on Characteristics of Training Programs Attended

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Number of Training Programs Attended	1.1	1.0	1.1	0.1	0.1***	-0.0
Attended Training Provided by:						
Private	37	30	34	7***	4**	3
Community college	19	22	24	-3*	2	-5***
Vocational training center	13	14	13	-1	-1	0
4-year college or university	8	8	8	-0	0	-0
Other	12	12	11	-0	-1	1
Attended Training for:						
General education	14	14	16	0	2	-1
Occupation or specific skill	66	65	68	1	3*	-2
Attended Training Intended to:						
Prepare for new occupation	45	47	49	-1	2	-4
Improve skills in current occupation	30	27	28	3*	0	3
Sample Size	**1,105**	**1,081**	**1,078**			

Sources: 15-month follow-up survey and long-term follow-up survey.

Notes: Characteristics are included across all a participant's reported training episodes. Participation in training is counted for those who trained during the first 3 years of the follow-up period.

The approach means and conditional differences are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Appendix Table E.7. Characteristics of Training Programs Attended by ITA Customers Who Trained

	Means			Conditional Differences		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Number of Training Programs Attended	1.4	1.4	1.4	0.0	0.0	-0.0
Attended Training Provided by:						
Private	49	42	44	7***	2	5**
Community college	26	30	32	-5**	2	-6***
Vocational training center	19	20	17	-1	-2	1
4-year college or university	10	11	10	-1	-1	0
Other	16	17	14	-1	-3	2
Attended Training for:						
General education	20	20	21	-0	1	-1
Occupation or specific skill	90	91	89	-1	-2	1
Attended Training Intended to:						
Prepare for new occupation	62	65	64	-3	-1	-1
Improve skills in current occupation	40	38	36	2	-2	4*
Sample Size	**812**	**773**	**819**			

Sources: 15-month follow-up survey and long-term follow-up survey.

Notes: Characteristics are included across all a participant's reported training episodes. Means were computed using only people who participated in any training within the first 3 years of follow-up. Because these are nonrandom samples of the full groups, differences in means across approaches cannot be interpreted as the impact of one approach as compared with another.

The approach means and conditional differences are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Appendix Table E.8. Impacts on Completion of Training Programs

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Completed a Training Program						
Starting within 3 years of RA	62	58	64	4**	6***	-2
Starting at least 3 years after RA	16	17	16	-1	-1	0
Earned a Certificate or Degree from a Training Program						
Starting within 3 years of RA	57	53	59	4*	6***	-2
Starting at least 3 years after RA	14	15	13	-1	-2	1
Sample Size	**1,105**	**1,081**	**1,078**			

Sources: 15-month follow-up survey and long-term follow-up survey.

Note: People who did not participate in training are assigned values of 0 for all training-related variables.

The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

RA = random assignment.

E.11

Appendix Table E.9. Differences in Completion of Training Programs Among ITA Customers Who Participated in Training

	Means			Conditional Differences		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Completed a Training Program 　Starting within 3 years of RA	85	81	83	4*	2	1
Earned a Certificate or Degree from a Training Program 　Starting within 3 years of RA	78	74	77	4*	3	1
Sample Size	**812**	**773**	**819**			

Sources: 15-month follow-up survey and long-term follow-up survey.

Notes: Means were computed using only people who participated in any training within the first 3 years of follow-up. Because these are nonrandom samples of the full groups, differences in means across approaches cannot be interpreted as the impact of one approach as compared with another.

The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

RA = random assignment.

Appendix E

Appendix Table E.10. Impacts on Program Completion, by Provider Type

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Private	31	26	30	5**	4**	1
Community College	12	14	17	-2	3*	-5***
Vocational Training Center	11	10	11	1	1	0
Four-Year College or University	6	6	6	-0	-0	0
Other	10	10	9	0	-1	1
Sample Size	**1,105**	**1,081**	**1,078**			

Sources: 15-month follow-up survey and long-term follow-up survey.

Notes: Completion of programs is based on completion of a training program within the first 3 years of follow-up for any of the customers' reported training programs.
People with no training have a 0 for completion in training programs of all types.

The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Appendix Table E.11. Differences in Program Completion Among ITA Customers Who Participated in Training, by Provider Type

	Means			Conditional Differences		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Training Starting Within Three Years of RA						
Private	41	36	39	5**	3	2
Community college	17	19	22	-2	3	-5***
Vocational training center	16	14	14	1	-0	1
Four-year college or university	8	9	7	-1	-1	1
Other	14	14	11	-0	-3*	3
Sample Size	**812**	**773**	**819**			

Sources: 15-month follow-up survey and long-term follow-up survey.

Notes: Completion of program is counted across all a person's reported training episodes. Means were computed using only people who participated in any training within the first 3 years of follow-up. Because these are nonrandom samples of the full groups, differences in means across approaches cannot be interpreted as the impact of one approach as compared with another.

The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

RA = random assignment.

APPENDIX F

SUPPLEMENTAL TABLES ON EMPLOYMENT OUTCOMES (CHAPTER VI)

Appendix Table F.1. Impacts on Employment, by Quarter (Survey Data)

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Employed						
Quarter 1	32	31	29	1	-2	3
Quarter 2	47	45	44	2	-1	3
Quarter 3	59	58	56	1	-1	3
Quarter 4	69	66	68	2	2	0
Quarter 5	74	72	77	3	5***	-3
Quarter 6	77	76	80	1	4**	-3
Quarter 7	77	78	79	-1	1	-2
Quarter 8	78	79	80	-1	1	-2
Quarter 9	78	78	78	-0	-0	0
Quarter 10	80	78	80	2	2	-0
Quarter 11	81	78	80	3*	2	1
Quarter 12	82	79	81	4**	2	1
Quarter 13	83	81	82	3*	1	2
Quarter 14	83	82	83	1	1	-0
Quarter 15	84	82	84	2	2	0
Quarter 16	84	82	84	2	2	-0
Quarter 17	84	83	84	1	1	0
Quarter 18	84	83	84	1	1	0
Quarter 19	84	83	83	1	0	1
Quarter 20	83	83	83	1	0	1
Quarter 21	82	82	82	1	-0	1
Quarter 22	82	81	81	0	0	0
Average Employment						
Quarters 1–22	76	74	76	1	1	0
Sample Size	**1,097**	**1,080**	**1,076**			

Sources: 15-month follow-up survey and long-term follow-up survey.

Notes: Employed is defined as having worked at least one day in the time period. Quarters are defined as 13-week intervals counting backwards from the long-term follow-up survey, and Quarter 1 is the first of these complete 13-week quarters after random assignment.

The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Appendix Table F.2. Impacts on Employment Outcomes (Survey Data)

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Full Follow-Up Period						
Percentage of quarters employed	77	76	77	1	1	-0
Hours worked per quarter	407	395	405	12	10	2
Earlier Follow-Up Period						
Percentage of quarters employed	76	75	76	1	1	-0
Hours worked per quarter	397	386	396	11	10	1
Final Two Years of Follow-Up Period						
Labor force participant at time of followup	88	89	90	-2	0	-2
Percentage of quarters employed	80	79	80	1	1	0
Hours worked per quarter	430	418	428	13	10	2
Sample Size	**1,104**	**1,081**	**1,076**			

Source: Long-term follow-up survey.

Notes: Employed in a quarter is defined as having worked at least one day in that quarter. Earnings include totals for all jobs worked in the time period. Dollars are in 2002 dollars.

The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

Because the outcomes presented could not be defined for some customers, the sample size ranges are:
A1: 1,097 to 1,104
A2: 1,080 to 1,081
A3: 1,076 for all outcomes

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Appendix F

Appendix Table F.3. Percentage of Customers Who Became Employed in an Occupation in Which They Received Training

	Percentage			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Trained in Occupation Within Three Years Since Random Assignment and Was:						
Ever Employed in Same Occupation	42	38	42	4**	4*	0
Ever Employed in Same Occupation in Early Follow-Up Period	41	37	40	4*	4*	0
Ever Employed in Same Occupation in Final Two Years of Follow-Up Period	32	27	29	5***	2	3

Sources: 15-month follow-up survey and long-term follow-up survey.

Notes: Percentage of all respondents who were employed in a given two-digit SOC occupation and were trained in the same two-digit SOC occupation.

The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics. Sample sizes vary by row.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Appendix Table F.4. Impacts on Earnings, by Quarter (Survey Data)

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Quarterly Earnings						
Quarter 1	1,406	1,304	1,219	102	-84	186
Quarter 2	2,784	2,648	2,474	136	-175	311*
Quarter 3	3,794	3,646	3,546	148	-100	247
Quarter 4	4,581	4,402	4,467	180	65	115
Quarter 5	5,231	4,951	5,256	280	306	-26
Quarter 6	5,685	5,522	5,681	163	159	4
Quarter 7	6,165	5,939	6,144	226	204	22
Quarter 8	6,473	6,243	6,312	231	70	161
Quarter 9	6,780	6,279	6,468	501**	189	312
Quarter 10	7,018	6,405	6,581	613***	176	437*
Quarter 11	7,157	6,502	6,773	656***	272	384
Quarter 12	7,344	6,653	6,923	691***	270	421*
Quarter 13	7,509	6,823	7,012	687***	189	498**
Quarter 14	7,545	6,903	7,060	642***	157	485**
Quarter 15	7,563	6,931	7,229	632***	298	333
Quarter 16	7,557	7,008	7,277	549**	269	280
Quarter 17	7,576	7,076	7,247	500**	171	329
Quarter 18	7,622	7,167	7,223	454*	56	399*
Quarter 19	7,674	7,155	7,262	519**	107	411*
Quarter 20	7,604	7,074	7,167	530**	93	437*
Quarter 21	7,525	7,070	7,170	456*	101	355
Quarter 22	7,437	6,878	7,224	559**	346	213
Average Earnings						
Quarters 1–22	6,365	5,935	6,078	430**	143	287
Sample Size	**1,097**	**1,080**	**1,076**			

Sources: 15-month follow-up survey and long-term follow-up survey.

Notes: Quarters are defined as 13-week intervals counting backwards from the long-term follow-up survey, and Quarter 1 is the first of these complete 13-week quarters after random assignment. Dollars are in 2002 dollars.

The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Appendix F

Appendix Table F.5. Impacts on Quarterly Earnings (Survey Data)

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Full Follow-Up Period						
Quarterly earnings	6,592	6,152	6,329	440**	176	263
Earlier Follow-Up Period						
Quarterly earnings	6,327	5,934	6,083	392**	149	244
Final Two Years of Follow-Up Period						
Quarterly earnings	7,186	6,665	6,918	522**	254	268
Sample Size	**1,105**	**1,081**	**1,078**			

Source: Long-term follow-up survey.

Notes: Employed in a quarter is defined as having worked at least one day in that quarter. Earnings include totals for all jobs worked in the time period. Dollars are in 2002 dollars.

The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

Because the outcomes presented could not be defined for some customers, the sample size ranges are:
A1: 986 to 1,105
A2: 948 to 1,081
A3: 957 to 1,078

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Appendix Table F.6. Impacts on Employment, by Quarter (Administrative Data)

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Employed						
Quarter 1	46	45	43	1	-2	3**
Quarter 2	52	53	51	-2	-2	0
Quarter 3	58	58	58	0	-0	0
Quarter 4	63	64	62	-1	-2	1
Quarter 5	65	66	65	-1	-1	0
Quarter 6	67	68	67	-1	-1	0
Quarter 7	68	68	68	-0	-0	0
Quarter 8	67	67	68	0	1	-0
Quarter 9	68	67	67	1	0	1
Quarter 10	68	68	67	0	-1	2
Quarter 11	68	67	66	1	-0	1
Quarter 12	68	67	66	1	-2	3**
Quarter 13	67	66	65	1	-1	2*
Quarter 14	67	67	65	0	-2	2
Quarter 15	67	67	65	-0	-1	1
Quarter 16	67	66	65	1	-1	2*
Quarter 17	66	66	65	0	-1	1
Quarter 18	65	66	64	-0	-1	1
Quarter 19	65	64	63	1	-1	2
Quarter 20	65	64	63	1	-1	2
Quarter 21	64	63	62	1	-1	2
Quarter 22	63	62	61	1	-1	2*
Average Employment						
Quarters 1–22	64	64	63	0	-1	1
Sample Size	**2,646**	**2,647**	**2,627**			

Source: State Unemployment Insurance wage records.

Notes: Quarters are defined by the first calendar quarter after random assignment.

The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Appendix Table F.7. Impacts on Earnings, by Quarter (Administrative Data)

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Quarterly Earnings						
Quarter 1	1,850	1,874	1,604	-24	-270***	247***
Quarter 2	2,391	2,552	2,222	-161	-330***	170
Quarter 3	2,982	3,163	2,906	-181	-257**	76
Quarter 4	3,446	3,589	3,414	-143	-175	31
Quarter 5	3,801	4,015	3,778	-214*	-237*	23
Quarter 6	4,128	4,270	4,068	-141	-202	61
Quarter 7	4,291	4,387	4,314	-97	-73	-24
Quarter 8	4,401	4,506	4,419	-105	-87	-18
Quarter 9	4,623	4,578	4,443	45	-135	180
Quarter 10	4,774	4,673	4,645	102	-27	129
Quarter 11	4,825	4,714	4,745	111	31	80
Quarter 12	5,012	4,818	4,741	194	-78	272**
Quarter 13	5,023	4,897	4,798	126	-99	224
Quarter 14	5,100	4,918	4,829	182	-89	271*
Quarter 15	5,127	5,047	4,849	80	-198	278**
Quarter 16	5,106	5,033	4,875	73	-158	231
Quarter 17	5,145	5,031	4,952	114	-79	193
Quarter 18	5,063	5,034	4,956	30	-78	108
Quarter 19	5,111	5,040	4,965	71	-75	146
Quarter 20	5,130	5,000	4,977	129	-23	152
Quarter 21	5,073	4,953	4,978	120	25	95
Quarter 22	5,037	4,940	4,912	97	-28	125
Average Earnings						
Quarters 1–22	4,429	4,411	4,290	19	-120	139
Sample Size	**2,646**	**2,647**	**2,627**			

Source: State Unemployment Insurance wage records.

Notes: Quarters are defined by the first calendar quarter after random assignment. Dollars are in 2002 dollars.

The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Appendix Table F.8. Impacts on Employment and Earnings (Administrative Data)

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Percent of Quarters Employed						
Full Follow-Up (2002-2009)	63	63	62	0	-1	1
Earlier Follow-Up (2002-2007)	65	64	64	0	-1	1
Final Two Years of Follow-Up (2008-2009)	59	59	58	0	0	1
Average Quarterly Earnings						
Full Follow-Up (2002-2009)	4,565	4,540	4,462	25	-78	103
Earlier Follow-Up (2002-2007)	4,480	4,481	4,372	-2	-110	109
Final Two Years of Follow-Up (2008-2009)	4,818	4,713	4,734	105	21	84
Sample Size	**2,646**	**2,647**	**2,627**			

Source: State Unemployment Insurance wage records.

Notes: Quarters are defined by calendar quarters. Dollars are in 2002 dollars.

The approach means and impacts are regression adjusted. The regression predictors include: demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Appendix Table F.9. Impacts on Employment Quality in Full Follow-Up Period

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Percentage of Quarters Employed in Job with the Following Characteristics						
High-Wage Job[a]	21	18	18	3**	-0	3**
Full-Time Job[b]	68	66	67	2	1	1
Stable Job[c]	75	73	75	1	1	-0
Union	5	5	6	-0	1	-1*
Percentage of Quarters Employed in Job with the Following Benefits						
Health Insurance	57	56	57	1	1	0
Paid Leave	58	57	58	1	2	-1
Retirement Benefits	52	51	51	1	1	0
Sample Size	**1,097**	**1,080**	**1,076**			

Source: Long-term follow-up survey.

Notes: The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

[a]A high-wage job pays $20 or more an hour in 2002 dollars.

[b]A high-wage job with benefits pays $20 or more an hour in 2002 dollars and has health insurance, paid leave, or retirement benefits.

[c]A stable job is one in which the customer is employed continuously for at least six months.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Appendix Table F.10. Impacts on Employment Quality in Early Follow-Up Period

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Percentage of Quarters Employed in Job with the Following Characteristics						
High-Wage Job[a]	19	17	17	2*	-0	3**
Full-Time Job[b]	67	65	66	2	1	1
Stable Job[c]	73	72	73	1	2	-0
Union	4	5	6	-0	1	-1
Percentage of Quarters Employed in Job with the Following Benefits						
Health Insurance	55	54	55	1	1	-0
Paid Leave	55	54	56	1	2	-1
Retirement Benefits	49	49	49	1	1	0
Sample Size	**1,097**	**1,080**	**1,076**			

Source: Long-term follow-up survey.

Notes: The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

[a]A high-wage job pays $20 or more an hour in 2002 dollars.

[b]A high-wage job with benefits pays $20 or more an hour in 2002 dollars and has health insurance, paid leave, or retirement benefits.

[c]A stable job is one in which the customer is employed continuously for at least six months.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Appendix G

Supplemental tables for benefit-cost analysis (Chapter VIII)

Appendix Table G.1. Fringe Benefits as a Percentage of Earnings

Fringe Benefit	Total Wages and Salaries ($)	Total Cost of Benefit ($)	Fringe Benefit as % of Wages and Salaries	Civilian Participation Rate (%)	Estimated % of Wage Cost for Those Receiving Benefit
Health Benefits	20.69	2.49	12.0	55	21.8
Paid Leave[a]	20.69	2.05	9.9	74	13.3
Retirement	20.69	1.34	6.5	55	11.8
Legally Required	20.69	2.32	11.2	100	11.2

Sources: Table 1, *Employer Costs for Employee Compensation*, Department of Labor, 2010; Table 1, Table 2, Table 6, *Employee Benefits in the United States – March 2010*, Department of Labor, 2010.

Notes: Costs are based on reports for civilian workers. Fringe benefit costs reported by employers include average costs for all employees, even those not receiving benefits. The final estimate of fringe benefit value is based on the benefit value as a percent of wages and salaries over all civilian workers divided by the participation rate of civilian workers.

[a]Paid leave benefits from the *Employee Benefits Survey* are broken down by paid sick leave, paid vacation, and paid personal leave. The survey simply asked for paid time off, so the estimate for paid vacation was used since it had the highest participation rate.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Appendix Table G.2. Impacts on Earnings (Survey Data)

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Earnings						
Quarter 1	1,406	1,304	1,219	102	-84	186
Quarter 2	2,784	2,648	2,474	136	-175	311*
Quarter 3	3,794	3,646	3,546	148	-100	247
Quarter 4	4,581	4,402	4,467	180	65	115
Quarter 5	5,231	4,951	5,256	280	306	-26
Quarter 6	5,685	5,522	5,681	163	159	4
Quarter 7	6,165	5,939	6,144	226	204	22
Quarter 8	6,473	6,243	6,312	231	70	161
Quarter 9	6,780	6,279	6,468	501**	189	312
Quarter 10	7,018	6,405	6,581	613***	176	437*
Quarter 11	7,157	6,502	6,773	656***	272	384
Quarter 12	7,344	6,653	6,923	691***	270	421*
Quarter 13	7,509	6,823	7,012	687***	189	498**
Quarter 14	7,545	6,903	7,060	642***	157	485**
Quarter 15	7,563	6,931	7,229	632***	298	333
Quarter 16	7,557	7,008	7,277	549**	269	280
Quarter 17	7,576	7,076	7,247	500**	171	329
Quarter 18	7,622	7,167	7,223	454*	56	399*
Quarter 19	7,674	7,155	7,262	519**	107	411*
Quarter 20	7,604	7,074	7,167	530**	93	437*
Quarter 21	7,525	7,070	7,170	456*	101	355
Quarter 22	7,437	6,878	7,224	559**	346	213
Average Quarterly Earnings in Final Year of Follow-up	6,880	6,343	6,589	537**	246	291
Sample Size	**1,097**	**1,080**	**1,076**			

Sources: 15-month follow-up survey and long-term follow-up survey.

Notes: Quarters are defined as 13-week intervals counting backwards from the long-term follow-up survey, and Quarter 1 is the first of these complete 13-week quarters after RA. Dollars are in 2002 dollars.
The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Appendix Table G.3. Impacts on Employee Fringe Benefit: Health Insurance Receipt (Survey Data)

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Health Insurance						
Quarter 1	18	19	16	-1	-3*	2
Quarter 2	29	29	27	-1	-2	1
Quarter 3	36	38	36	-2	-3	1
Quarter 4	44	44	45	-1	1	-1
Quarter 5	48	50	51	-2	1	-3
Quarter 6	52	53	55	-1	2	-3
Quarter 7	53	56	57	-3	0	-4*
Quarter 8	55	57	57	-2	-0	-2
Quarter 9	56	56	56	-0	0	-0
Quarter 10	59	56	58	3	2	1
Quarter 11	60	58	59	3	2	1
Quarter 12	62	58	61	4*	2	1
Quarter 13	63	60	61	4*	2	2
Quarter 14	63	61	62	2	1	1
Quarter 15	63	62	62	1	1	1
Quarter 16	64	62	63	1	1	1
Quarter 17	64	64	63	-0	-1	1
Quarter 18	65	64	64	1	1	0
Quarter 19	65	64	65	1	0	1
Quarter 20	65	64	64	1	-0	1
Quarter 21	64	63	64	1	0	1
Quarter 22	63	62	64	1	2	-0
Average Income When Received Health Insurance in Final Four Quarters of Follow-up[a]	5,816	5,387	5,519	428*	132	297
Sample Size	**1,105**	**1,081**	**1,078**			

Sources: 15-month follow-up survey and long-term follow-up survey.

Notes: Quarters are defined as 13-week intervals counting backwards from the long-term follow-up survey, and Quarter 1 is the first of these complete 13-week quarters after RA. Dollars are in 2002 dollars.
The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

[a] This value is needed in order to properly include the value of health benefits in the final four quarters of follow-up.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Appendix Table G.4. Impacts on Employee Fringe Benefit: Paid Time Off (Survey Data)

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Paid Time Off						
Quarter 1	18	19	16	-1	-3*	2
Quarter 2	27	28	26	-1	-2	1
Quarter 3	36	37	35	-1	-3	1
Quarter 4	44	43	45	1	2	-1
Quarter 5	48	49	50	-1	2	-2
Quarter 6	52	52	55	-0	3	-3
Quarter 7	53	55	57	-2	2	-4*
Quarter 8	56	56	58	-0	2	-2
Quarter 9	57	55	58	1	2	-1
Quarter 10	59	55	60	4*	4**	-0
Quarter 11	61	57	61	4*	4*	0
Quarter 12	63	58	63	5**	5**	-0
Quarter 13	63	60	64	4*	4*	-0
Quarter 14	63	62	64	1	2	-1
Quarter 15	64	63	65	1	2	-1
Quarter 16	65	64	65	1	2	-0
Quarter 17	65	65	66	-0	0	-0
Quarter 18	66	65	67	1	2	-1
Quarter 19	67	65	67	1	1	-0
Quarter 20	66	66	66	1	1	0
Quarter 21	65	65	66	1	2	-1
Quarter 22	65	64	66	1	2	-1
Average Income When Received Paid Time Off in Final Four Quarters of Follow-up[a]	5,879	5,340	5,511	538**	171	367
Sample Size	**1,105**	**1,081**	**1,078**			

Sources: 15-month follow-up survey and long-term follow-up survey.

Notes: Quarters are defined as 13-week intervals counting backwards from the long-term follow-up survey, and Quarter 1 is the first of these complete 13-week quarters after RA. Dollars are in 2002 dollars.

The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

[a]This value is needed in order to properly include the value of retirement benefits in the final four quarters of follow-up.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Appendix Table G.5. Impacts on Employee Fringe Benefit: Retirement Benefits (Survey Data)

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Retirement Benefits						
Quarter 1	15	18	15	-3*	-3**	0
Quarter 2	24	26	24	-2	-3	0
Quarter 3	32	33	30	-2	-3	1
Quarter 4	38	38	39	0	1	-0
Quarter 5	42	43	44	-1	0	-1
Quarter 6	46	47	47	-1	0	-2
Quarter 7	47	50	49	-3	-1	-2
Quarter 8	49	50	50	-1	-0	-1
Quarter 9	51	50	50	1	-0	1
Quarter 10	53	50	51	3	1	2
Quarter 11	54	52	53	2	1	1
Quarter 12	55	53	55	3	2	0
Quarter 13	57	54	57	3	3	0
Quarter 14	57	55	57	2	2	-0
Quarter 15	58	55	58	2	2	0
Quarter 16	59	55	58	3	3	1
Quarter 17	59	58	58	1	0	1
Quarter 18	59	58	59	2	2	0
Quarter 19	60	58	60	2	1	0
Quarter 20	60	58	59	2	1	1
Quarter 21	59	58	58	1	1	1
Quarter 22	58	57	59	2	2	-1
Average Income When Received Retirement Benefits in Final Four Quarters of Follow-up[a]	5,398	5,053	5,052	345	-2	347
Sample Size	**1,105**	**1,081**	**1,078**			

Sources: 15-month follow-up survey and long-term follow-up survey.

Notes: Quarters are defined as 13-week intervals counting backwards from the long-term follow-up survey, and Quarter 1 is the first of these complete 13-week quarters after RA. Dollars are in 2002 dollars.

The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

[a]This value is needed in order to properly include the value of retirement benefits in the final four quarters of follow-up.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Appendix Table G.6. Benefits of Switching from Guided Choice for Customers, Government, and Society, in 2002 Dollars if Customers Retire at Age 65

	Structured Choice vs. Guided Choice			Maximum Choice vs. Guided Choice		
	Customers	Government	Society	Customers	Government	Society
Earnings (survey)	35,802***	0	35,802***	15,265	0	15,265
Fringe Benefits (survey)						
Health benefits	6,231*	0	6,231*	1,423	0	1,423
Paid leave	4,606**	0	4,606**	1,380	0	1,380
Retirement	2,744	0	2,744	-116	0	-116
Legally required	4,010***	0	4,010***	1,710	0	1,710
Taxes	-6,086***	6,086***	0	-2,595	2,595	0
Unemployment Insurance						
Benefits	194	-194	0	1,682	-1,682	0
Administrative costs	0	-17	-17	0	-151	-151
Public Assistance Receipt						
Food stamp benefits	-255	255	0	-624	624	0
Food stamp administrative costs	0	61	61	0	150	150
Other cash assistance benefits	-1,040	1,040	0	1,783	-1783	0
Other cash assistance administrative costs	0	104	104	0	-178	-178
Total Benefits	**46,207****	**7,335**	**53,541****	**19,907**	**-425**	**19,482**

Sources: Table VII.1, Table VII.2, Appendix Table G.1, Appendix Table G.2, Appendix Table G.3, Appendix Table G.4, and Appendix Table G.5

Note: Calculations are based on the median customer as described in the chapter and detailed in Appendix C. The following assumptions are applied: (1) discount rate is 2.5 percent; (2) retirement age is 65; (3) future unobserved impacts are the same as impacts in the final year of follow-up. Total benefits amount is based on adding impacts over different benefits, but significance levels are based on significance level of individual-level total benefits regressions as described in the chapter.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Appendix Table G.7. Benefits of Switching from Guided Choice for Customers, Government, and Society, in 2002 Dollars over the Observable Follow-up Period

	Structured Choice vs. Guided Choice			Maximum Choice vs. Guided Choice		
	Customers	Government	Society	Customers	Government	Society
Earnings (survey)	11,169**	0	11,169**	3,992	0	3,992
Fringe Benefits (survey)						
Health benefits	1,946*	0	1,946*	107	0	107
Paid leave	1,322**	0	1,322**	337	0	337
Retirement	876	0	876	-107	0	-107
Legally required	1,251**	0	1,251**	447	0	447
Taxes	-1,899**	1,899**	0	-679	679	0
Unemployment Insurance						
Benefits	69	-69	0	596	-596	0
Administrative costs	0	-6	-6	0	53	53
Public Assistance Receipt						
Food stamp benefits	-90	90	0	-221	221	0
Food stamp administrative costs	0	22	22	0	53	53
Other cash assistance benefits	-369	369	0	632	-632	0
Other cash assistance administrative costs	0	37	37	0	-63	-63
Total Benefits	**14,275****	**2,341**	**16,616****	**5,103**	**-391**	**4,712**

Sources: Table VII.1, Table VII.2, Appendix Table G.1, Appendix Table G.2, Appendix Table G.3, Appendix Table G.4, and Appendix Table G.5.

Note: Calculations are based on the median customer as described in the chapter and detailed in Appendix C. The following assumptions are applied: (1) discount rate is 2.5 percent; (2) retirement age is 62; (3) future unobserved impacts do not exist beyond follow-up. Total benefits amount is based on adding impacts over different benefits, but significance levels are based on significance level of individual-level total benefits regressions as described in the chapter.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

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Appendix Table G.8. Benefits of Switching from Guided Choice for Customers, Government, and Society, in 2002 Dollars with a Discount Rate of 10 Percent

	Structured Choice vs. Guided Choice			Maximum Choice vs. Guided Choice		
	Customers	Government	Society	Customers	Government	Society
Earnings (survey)	17,790**	0	17,790	7,183	0	7,183
Fringe Benefits (survey)						
Health benefits	3,070*	0	3,070	545	0	545
Paid leave	2,228**	0	2,228	637	0	637
Retirement	1,359	0	1,359	-102	0	-102
Legally required	1,992**	0	1,992	804	0	804
Taxes	-3,024**	3,024	0	-1,221	1,221	0
Unemployment Insurance						
Benefits	102	-102	0	887	-887	0
Administrative costs	0	-9	-9	0	-80	-80
Public Assistance Receipt						
Food stamp benefits	-134	134	0	-329	329	0
Food stamp administrative costs	0	32	32	0	79	79
Other cash assistance benefits	-548	548	0	940	-940	0
Other cash assistance administrative costs	0	55	55	0	-94	-94
Total Benefits	**22,835****	**3,682**	**26,517****	**9,344**	**-371**	**8,973**

Sources: Table VII.1, Table VII.2, Appendix Table G.1, Appendix Table G.2, Appendix Table G.3, Appendix Table G.4, and Appendix Table G.5.

Note: Calculations are based on the median customer as described in the chapter and detailed in Appendix C. The following assumptions are applied: (1) discount rate is 10 percent; (2) retirement age is 62; (3) future unobserved impacts are the same as impacts in the final year of follow-up. Total benefits amount is based on adding impacts over different benefits, but significance levels are based on significance level of individual-level total benefits regressions as described in the chapter.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

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Appendix Table G.9. Benefits of Switching from Guided Choice for Customers, Government, and Society, in 2002 Dollars Using Administrative Data

	Structured Choice vs. Guided Choice			Maximum Choice vs. Guided Choice		
	Customers	Government	Society	Customers	Government	Society
Earnings (administrative)	-6,105	0	-6,105	2,386	0	2,386
Fringe Benefits (survey)						
Health benefits	-2,982	0	-2,982	45	0	45
Paid leave	-1,110	0	-1,110	587	0	587
Retirement	-765	0	-765	129	0	129
Legally required	-684	0	-684	267	0	267
Taxes	1,038	-1038	0	-406	406	0
Unemployment Insurance						
Benefits	175	-175	0	1,513	-1,513	0
Administrative costs	0	-16	-16	0	-136	-136
Public Assistance Receipt						
Food stamp benefits	-936	936	0	1,604	-1,604	0
Food stamp administrative costs	0	55	55	-	135	135
Other cash assistance benefits	-936	936	0	1,604	-1,604	0
Other cash assistance administrative costs	0	94	94	0	-160	-160
Total Benefits	**-11,598**	**85**	**-11,513**	**5,563**	**-2,311**	**3,252**

Sources: Table VII.1, Table G.7, Table VII.2, Appendix Table G.2, Appendix Table G.3, Appendix Table G.4, and Appendix Table G.5.

Note: Calculations are based on the median customer as described in the chapter and detailed in Appendix C. The following assumptions are applied: (1) discount rate is 2.5 percent; (2) retirement age is 62; (3) future unobserved impacts are the same as impacts in the final year of follow-up. Total benefits amount is based on adding impacts over different benefits, but significance levels are based on significance level of individual-level total benefits regressions as described in the chapter.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

Appendix H

Supplemental tables on analysis of impacts by subgroups and sites (Chapter IX)

Appendix Table H.1. Impacts on Primary Outcomes, by Age Category

	Age 40 or Younger at Baseline						Older than 40 at Baseline					
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Training Outcomes												
Attended Training Program	73	73	79	1	6**	-6**	73	71	74	2	4	-1
Weeks in Training Program	33	31	33	2	2	0	29	27	28	2	1	1
Completed a Training Program	62	57	66	5	9***	-4	62	59	62	3	3	0
Labor Market Outcomes During Final Two Years of Follow-Up[b]												
Percentage of Quarters Employed	76	74	75	2	1	1	83	83	84	0	1	-1
Average Quarterly Earnings	6,830	6,352	6,623	478	271	206	7,517	6,922	7,182	595*	260	335
Ever Employed in an Occupation Matching Training Program[a]	35	27	31	8**	4	4	30	27	27	3	0	3
Income and Self-Sufficiency Outcomes During Final Year of Follow-Up[c]												
Household Income	40,757	38,469	38,585	2,289	116	2,172	40,652	40,609	39,147	43	-1,462	1,504
Household Income Below the Poverty Line	14	14	16	-0	1	-1	19	19	19	0	-0	1
Received Unemployment Insurance[d]	22	18	19	4[†]	1	3	21	26	23	-4*,[†]	-2	-2
Received SNAP or Cash Assistance[d]	31	35	36	-3	2	-5*	22	21	22	1	1	0
Sample Size	**485**	**459**	**484**				**620**	**622**	**594**			

Sources: 15-month follow-up and long-term follow-up survey.

Notes: The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics. Because the outcomes presented could not be defined for some customers, the sample sizes ranges for age 40 and under are A1: 458 to 485, A2: 425 to 459, A3: 458 to 484; and for those over 40 are A1: 552 to 620, A2: 562 to 622, A3: 530 to 594.

[a]Training outcome measures are defined for training that started within the first three years of follow-up.

[b]The final two years of follow-up are defined as the eight 13-week quarters immediately preceding the interview date of the long-term follow-up survey. The long-term follow-up survey was collected from August 6, 2009, through May 26, 2010.

[c]The final year of follow-up is defined as the 12 months immediately preceding the date of the long-term follow-up survey.

[d]Receipt of unemployment insurance, SNAP, or cash assistance is based on reports of receipt by anyone in the household.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.
[†] Subgroup impacts are significantly different from one another at the 0.05 level.

Appendix Table H.2. Impacts on Primary Outcomes, by Educational Attainment at Baseline

	High School Degree or Less at Baseline						More than High School Degree at Baseline					
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Training Outcomes												
Attended Training Program	73	71	77	2	6**	-4*	74	73	75	1	3	-1
Weeks in Training Program	29	27	29	2	2	-0	35	33	33	2	0	2
Completed a Training Program	61	57	65	4	8***	-4	64	60	62	4	2	2
Labor Market Outcomes During Final Two Years of Follow-Up[b]												
Percentage of Quarters Employed	78	77	79	2	2	-1	83	83	81	-0	-2	2
Average Quarterly Earnings	6,504	5,959	6,551	545**	592**	-47	8,467	7,977	7,597	491	-379	870**
Ever Employed in an Occupation Matching Training Program[a]	33	28	31	5**	3	2	30	25	26	5	0	5
Income and Self-Sufficiency Outcomes During Final Year of Follow-Up[c]												
Household Income	38,135	37,252	37,476	882	224	659	45,484	44,075	41,452	1,409	-2,622	4,032**
Household Income Below the Poverty Line	18	19	20	-1	2	-2	14	13	11	1	-2	3
Received Unemployment Insurance[d]	23	21	21	2	1	1	20	24	21	-5	-3	-2
Received SNAP or Cash Assistance[d]	31	32	33	-1	1	-2	19	18	21	0	2	-2
Sample Size	**677**	**672**	**681**				**428**	**409**	**397**			

Sources: 15-month follow-up and long-term follow-up survey.

Notes: The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics. Because the outcomes presented could not be defined for some customers, the sample sizes ranges for those with a high school degree or less are A1: 617 to 677, A2: 628 to 672, A3: 629 to 681; and for those with more than a high school degree are A1: 393 to 428, A2: 359 to 409, A3: 359 to 397.

[a]Training outcome measures are defined for training that started within the first three years of follow-up.

[b]The final two years of follow-up are defined as the eight 13-week quarters immediately preceding the interview date of the long-term follow-up survey. The long-term follow-up survey was collected from August 6, 2009, through May 26, 2010.

[c]The final year of follow-up is defined as the 12 months immediately preceding the date of the long-term follow-up survey.

[d]Receipt of unemployment insurance, SNAP, or cash assistance is based on reports of receipt by anyone in the household.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.
[†] Subgroup impacts are significantly different from one another at the 0.05 level.

Appendix Table H.3. Impacts on Primary Outcomes, by Vocational Certificate Status

	Had Vocational Certificate at Baseline						Did Not Have Vocational Certificate at Baseline					
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Training Outcomes												
Attended Training Program	81	69	77	11***,[†]	7*	4[†]	71	72	76	-1[†]	4*	-5**,[†]
Weeks in Training Program	34	27	31	7**	4	3	30	29	30	1	1	-0
Completed a Training Program	66	58	63	8*	6	2	61	58	64	3	6**	-3
Labor Market Outcomes During Final Two Years of Follow-Up[b]												
Percentage of Quarters Employed	80	78	78	3	1	2	80	79	80	0	1	-0
Average Quarterly Earnings	7,684	6,914	7,254	769*	340	429	7,037	6,580	6,813	457*	234	224
Ever Employed in an Occupation Matching Training Program[a]	36	25	29	11***	4	7*	31	28	29	3	1	2
Income and Self-Sufficiency Outcomes During Final Year of Follow-Up[c]												
Household Income	41,032	41,195	38,534	-163	-2,661	2,498	40,593	39,076	39,002	1,517	-73	1,590
Household Income Below the Poverty Line	18	17	19	1	2	-1	17	17	17	-0	-0	-0
Received Unemployment Insurance[d]	23	22	24	1	1	-1	21	22	21	-1	-1	0
Received SNAP or Cash Assistance[d]	24	25	30	-0	6	-6	27	28	28	-1	0	-1
Sample Size	**248**	**274**	**263**				**857**	**807**	**815**			

Sources: 15-month follow-up and long-term follow-up survey.

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Notes: The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics. Because the outcomes presented could not be defined for some customers, the sample sizes ranges for those with vocational certification are A1: 222 to 248, A2: 251 to 274, A3: 241 to 263; and for those with no vocational certification are A1: 788 to 857, A2: 737 to 807, A3: 747 to 815.

[a]Training outcome measures are defined for training that started within the first three years of follow-up.

[b]The final two years of follow-up are defined as the eight 13-week quarters immediately preceding the interview date of the long-term follow-up survey. The long-term follow-up survey was collected from August 6, 2009, through May 26, 2010.

[c]The final year of follow-up is defined as the 12 months immediately preceding the date of the long-term follow-up survey.

[d]Receipt of unemployment insurance, SNAP, or cash assistance is based on reports of receipt by anyone in the household.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.
[†] Subgroup impacts are significantly different from one another at the 0.05 level.

Appendix H

Appendix Table H.4. Impacts on Primary Outcomes in Phoenix

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Training Outcomes[a]						
Attended Training Program	75	73	81	3	8	-5
Weeks in Training Program	30	34	28	-3	-6	2
Completed a Training Program	61	57	71	4	14*	-10
Labor Market Outcomes During Final Two Years of Follow-Up[b]						
Percentage of Quarters Employed	76	72	80	5	9	-4
Average Quarterly Earnings	6,807	5,557	6,270	1,250**	713	537
Ever Employed in an Occupation Matching Training Program[a]	38	24	30	14*	6	8
Well-Being and Self-Sufficiency Outcomes During Final Year of Follow-Up[c]						
Household Income	37,766	33,296	32,225	4,470	-1,071	5,542*
Household Income Below the Poverty Line	24	20	23	5	3	2
Received Unemployment Insurance[d]	18	17	17	2	1	1
Received Food Stamps or Cash Assistance[d]	32	31	39	1	8	-7
Sample Size	**83**	**77**	**74**			

Sources: 15-month follow-up and long-term follow-up survey.

Notes: The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

Because the outcomes presented could not be defined for some customers, the sample sizes ranges are
A1: 74 to 83
A2: 69 to 77
A3: 67 to 74

[a]Training outcome measures are defined for training that started within the first three years of follow-up.

[b]The final two years of follow-up are defined as the eight 13-week quarters immediately preceding the interview date of the long-term follow-up survey. The long-term follow-up survey was collected from August 6, 2009, through May 26, 2010.

[c]The final year of follow-up is defined as the 12 months immediately preceding the date of the long-term follow-up survey.

[d]Receipt of unemployment insurance, food stamps, or cash assistance is based on reports of receipt by anyone in the household.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.
[†] Subgroup impacts are significantly different from one another at the 0.05 level.

Appendix Table H.5. Impacts on Primary Outcomes in Maricopa County

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Training Outcomes[a]						
Attended Training Program	80	79	86	1	7	-6
Weeks in Training Program	41	34	36	7	2	5
Completed a Training Program	66	65	69	1	4	-3
Labor Market Outcomes During Final Two Years of Follow-Up[b]						
Percentage of Quarters Employed	85	85	90	-0	5	-5
Average Quarterly Earnings	7,263	6,754	7,953	509	1,199*	-690
Ever Employed in an Occupation Matching Training Program[a]	36	34	44	2	10	-8
Well-Being and Self-Sufficiency Outcomes During Final Year of Follow-Up[c]						
Household Income	41,159	41,456	43,961	-297	2,505	-2,802
Household Income Below the Poverty Line	16	14	7	2	-7*	9**,†
Received Unemployment Insurance[d]	24	24	15	0	-9	9
Received Food Stamps or Cash Assistance[d]	27	27	21	-1	-7	6
Sample Size	**88**	**94**	**91**			

Sources: 15-month follow-up and long-term follow-up survey.

Notes: The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

Because the outcomes presented could not be defined for some customers, the sample sizes ranges are
A1: 79 to 88
A2: 86 to 94
A3: 83 to 91

[a]Training outcome measures are defined for training that started within the first three years of follow-up.

[b]The final two years of follow-up are defined as the eight 13-week quarters immediately preceding the interview date of the long-term follow-up survey. The long-term follow-up survey was collected from August 6, 2009, through May 26, 2010.

[c]The final year of follow-up is defined as the 12 months immediately preceding the date of the long-term follow-up survey.

[d]Receipt of unemployment insurance, food stamps, or cash assistance is based on reports of receipt by anyone in the household.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.
† Subgroup impacts are significantly different from one another at the 0.05 level.

Appendix Table H.6. Impacts on Primary Outcomes in Bridgeport

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Training Outcomes[a]						
Attended Training Program	82	83	91	-1	8*	-9**
Weeks in Training Program	28	21	23	7*	2	5
Completed a Training Program	70	71	77	-1	6	-8
Labor Market Outcomes During Final Two Years of Follow-Up[b]						
Percentage of Quarters Employed	76	75	76	1	1	1
Average Quarterly Earnings	7,383	6,049	6,420	1,334**	371	963*
Ever Employed in an Occupation Matching Training Program[a]	33	28	33	5	5	-0
Well-Being and Self-Sufficiency Outcomes During Final Year of Follow-Up[c]						
Household Income	41,482	34,112	36,887	7,370***,†	2,775	4,595*
Household Income Below the Poverty Line	20	27	28	-7	1	-8
Received Unemployment Insurance[d]	28	24	21	5	-2	7
Received Food Stamps or Cash Assistance[d]	34	35	34	-1	-1	-0
Sample Size	**120**	**121**	**129**			

Sources: 15-month follow-up and long-term follow-up survey.

Notes: The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

Because the outcomes presented could not be defined for some customers, the sample sizes ranges are
A1: 110 to 120
A2: 116 to 121
A3: 120 to 129

[a]Training outcome measures are defined for training that started within the first three years of follow-up.

[b]The final two years of follow-up are defined as the eight 13-week quarters immediately preceding the interview date of the long-term follow-up survey. The long-term follow-up survey was collected from August 6, 2009, through May 26, 2010.

[c]The final year of follow-up is defined as the 12 months immediately preceding the date of the long-term follow-up survey.

[d]Receipt of unemployment insurance, food stamps, or cash assistance is based on reports of receipt by anyone in the household.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.
† Subgroup impacts are significantly different from one another at the 0.05 level.

Appendix Table H.7. Impacts on Primary Outcomes in Jacksonville

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Training Outcomes[a]						
Attended Training Program	80	82	80	-2	-2	-0
Weeks in Training Program	38	43	45	-5	2	-6
Completed a Training Program	66	60	61	6	1	5
Labor Market Outcomes During Final Two Years of Follow-Up[b]						
Percentage of Quarters Employed	77	78	81	-1	3	-3
Average Quarterly Earnings	6,225	5,950	7,308	275	1,358*	-1,083
Ever Employed in an Occupation Matching Training Program[a]	34	32	35	2	3	-1
Well-Being and Self-Sufficiency Outcomes During Final Year of Follow-Up[c]						
Household Income	39,972	39,487	38,025	485	-1,463	1,947
Household Income Below the Poverty Line	21	11	8	9*	-3	12**,[†]
Received Unemployment Insurance[d]	11	17	14	-6	-3	-3
Received Food Stamps or Cash Assistance[d]	23	18	21	5	3	2
Sample Size	**119**	**105**	**106**			

Sources: 15-month follow-up and long-term follow-up survey.

Notes: The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

Because the outcomes presented could not be defined for some customers, the sample sizes ranges are
A1: 113 to 119
A2: 96 to 105
A3: 96 to 106

[a]Training outcome measures are defined for training that started within the first three years of follow-up.

[b]The final two years of follow-up are defined as the eight 13-week quarters immediately preceding the interview date of the long-term follow-up survey. The long-term follow-up survey was collected from August 6, 2009, through May 26, 2010.

[c]The final year of follow-up is defined as the 12 months immediately preceding the date of the long-term follow-up survey.

[d]Receipt of unemployment insurance, food stamps, or cash assistance is based on reports of receipt by anyone in the household.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.
[†] Subgroup impacts are significantly different from one another at the 0.05 level.

Appendix Table H.8. Impacts on Primary Outcomes in Atlanta

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Training Outcomes[a]						
Attended Training Program	60	60	65	1	6	-5
Weeks in Training Program	24	24	26	-0	2	-2
Completed a Training Program	51	48	54	3	6	-3
Labor Market Outcomes During Final Two Years of Follow-Up[b]						
Percentage of Quarters Employed	81	80	81	1	1	1
Average Quarterly Earnings	7,299	6,481	6,773	818	291	526
Ever Employed in an Occupation Matching Training Program[a]	27	26	17	0	-9**,†	9**
Well-Being and Self-Sufficiency Outcomes During Final Year of Follow-Up[c]						
Household Income	40,427	40,420	36,890	6	-3,530	3,536
Household Income Below the Poverty Line	16	16	22	-0	7*	-7*
Received Unemployment Insurance[d]	22	16	19	5	3	2
Received Food Stamps or Cash Assistance[d]	26	25	29	1	4	-3
Sample Size	**223**	**224**	**207**			

Sources: 15-month follow-up and long-term follow-up survey.

Notes: The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

Because the outcomes presented could not be defined for some customers, the sample sizes ranges are
A1: 207 to 223
A2: 202 to 224
A3: 193 to 207

[a]Training outcome measures are defined for training that started within the first three years of follow-up.

[b]The final two years of follow-up are defined as the eight 13-week quarters immediately preceding the interview date of the long-term follow-up survey. The long-term follow-up survey was collected from August 6, 2009, through May 26, 2010.

[c]The final year of follow-up is defined as the 12 months immediately preceding the date of the long-term follow-up survey.

[d]Receipt of unemployment insurance, food stamps, or cash assistance is based on reports of receipt by anyone in the household.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.
† Subgroup impacts are significantly different from one another at the 0.05 level.

Appendix Table H.9. Impacts on Primary Outcomes in Northeast Region

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Training Outcomes[a]						
Attended Training Program	62	65	76	-4	10	-14
Weeks in Training Program	22	22	20	-0	-2	2
Completed a Training Program	53	41	66	13	25*	-12
Labor Market Outcomes During Final Two Years of Follow-Up[b]						
Percentage of Quarters Employed	66	81	82	-15	1	-16
Average Quarterly Earnings	6,877	6,515	6,093	362	-422	784
Ever Employed in an Occupation Matching Training Program[a]	27	16	33	11	17	-6
Well-Being and Self-Sufficiency Outcomes During Final Year of Follow-Up[c]						
Household Income	39,819	39,227	33,867	591	-5,360	5,951
Household Income Below the Poverty Line	15	13	20	2	7	-5
Received Unemployment Insurance[d]	38	30	14	7	-17	24**,†
Received Food Stamps or Cash Assistance[d]	26	30	40	-3	10	-14
Sample Size	**26**	**23**	**26**			

Sources: 15-month follow-up and long-term follow-up survey

Notes: The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

Because the outcomes presented could not be defined for some customers, the sample sizes ranges are
A1: 26 to 26
A2: 20 to 23
A3: 24 to 26

[a] Training outcome measures are defined for training that started within the first three years of follow-up.

[b] The final two years of follow-up are defined as the eight 13-week quarters immediately preceding the interview date of the long-term follow-up survey. The long-term follow-up survey was collected from August 6, 2009, through May 26, 2010.

[c] The final year of follow-up is defined as the 12 months immediately preceding the date of the long-term follow-up survey.

[d] Receipt of unemployment insurance, food stamps, or cash assistance is based on reports of receipt by anyone in the household.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.
† Subgroup impacts are significantly different from one another at the 0.05 level.

Appendix Table H.10. Impacts on Primary Outcomes in North Cook County

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Training Outcomes[a]						
Attended Training Program	77	71	74	6	3	3
Weeks in Training Program	32	26	32	6*	6*	0
Completed a Training Program	69	62	64	7*	2	5
Labor Market Outcomes During Final Two Years of Follow-Up[b]						
Percentage of Quarters Employed	77	80	77	-4	-4	-0
Average Quarterly Earnings	7,125	7,609	6,650	-484[†]	-959*,[†]	475
Ever Employed in an Occupation Matching Training Program[a]	34	27	26	7*	-1	8**
Well-Being and Self-Sufficiency Outcomes During Final Year of Follow-Up[c]						
Household Income	41,087	42,637	41,345	-1,550	-1,292	-258
Household Income Below the Poverty Line	16	18	14	-2	-4	2
Received Unemployment Insurance[d]	24	21	29	3	8**,[†]	-5
Received Food Stamps or Cash Assistance[d]	24	24	29	-0	5	-5
Sample Size	**256**	**265**	**254**			

Sources: 15-month follow-up and long-term follow-up survey.

Notes: The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

Because the outcomes presented could not be defined for some customers, the sample sizes ranges are
A1: 232 to 256
A2: 241 to 265
A3: 232 to 254

[a]Training outcome measures are defined for training that started within the first three years of follow-up.

[b]The final two years of follow-up are defined as the eight 13-week quarters immediately preceding the interview date of the long-term follow-up survey. The long-term follow-up survey was collected from August 6, 2009, through May 26, 2010.

[c]The final year of follow-up is defined as the 12 months immediately preceding the date of the long-term follow-up survey.

[d]Receipt of unemployment insurance, food stamps, or cash assistance is based on reports of receipt by anyone in the household.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.
[†] Subgroup impacts are significantly different from one another at the 0.05 level.

Appendix Table H.11. Impacts on Primary Outcomes in Charlotte

	Means			Impacts		
	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice	Between A1 & A2	Between A3 & A2	Between A1 & A3
Training Outcomes[a]						
Attended Training Program	69	66	72	3	6	-3
Weeks in Training Program	31	31	30	0	-1	1
Completed a Training Program	57	52	60	5	8	-3
Labor Market Outcomes During Final Two Years of Follow-Up[b]						
Percentage of Quarters Employed	87	79	79	8**,†	0	8**,†
Average Quarterly Earnings	7,717	6,966	7,464	751	498	253
Ever Employed in an Occupation Matching Training Program[a]	29	23	29	6	7	-0
Well-Being and Self-Sufficiency Outcomes During Final Year of Follow-Up[c]						
Household Income	41,398	41,333	40,761	65	-572	638
Household Income Below the Poverty Line	13	13	16	-0	3	-4
Received Unemployment Insurance[d]	17	30	24	-13***,†	-7	-6
Received Food Stamps or Cash Assistance[d]	24	31	26	-6	-4	-2
Sample Size	**190**	**172**	**191**			

Sources: 15-month follow-up and long-term follow-up survey.

Notes: The approach means and impacts are regression adjusted. The regression predictors include demographics (age, sex, race/ethnicity), marital status, has children (yes or no), education level (associate's degree, bachelor's degree or higher), vocational certification, primary language (English or not), type of worker (dislocated or adult), and baseline employment characteristics (employed at baseline, earnings in 12 months prior to baseline). Estimates were obtained using weights to adjust for differences between respondents and nonrespondents in baseline characteristics.

Because the outcomes presented could not be defined for some customers, the sample sizes ranges are
A1: 169 to 190
A2: 157 to 172
A3: 173 to 191

[a]Training outcome measures are defined for training that started within the first three years of follow-up.

[b]The final two years of follow-up are defined as the eight 13-week quarters immediately preceding the interview date of the long-term follow-up survey. The long-term follow-up survey was collected from August 6, 2009, through May 26, 2010.

[c]The final year of follow-up is defined as the 12 months immediately preceding the date of the long-term follow-up survey.

[d]Receipt of unemployment insurance, food stamps, or cash assistance is based on reports of receipt by anyone in the household.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.
† Subgroup impacts are significantly different from one another at the 0.05 level.

Appendix H

Appendix I

Differences in measures of employment and earnings based on survey and administrative data

The employment rates and earnings levels based on state UI wage records are substantially lower than those based on survey responses, as discussed in Chapter VI. In addition, the impact on average quarterly earnings for Structured Choice customers relative to Guided Choice customers is much smaller in UI data than survey data. This appendix explores a set of potential explanations for discrepancies between survey- and UI-based measures. We begin by summarizing differences in survey- and UI-measures and providing a framework for assessing factors associated with the survey-UI earnings gap. We then explore factors potentially related to differences in survey- and UI-based employment rate, such as low levels of UI coverage in certain employment sectors. Next, we examine factors potentially associated with differences in survey and UI earnings levels among workers, such as reporting patterns in the components that make up the survey-based earnings measure. Finally, we summarize our findings from this analysis.

A. DISCREPANCIES IN SURVEY- AND UI-BASED EARNINGS MEASURES

There are several possible explanations for the higher reported earnings levels in the survey data than in administrative records data. First, informal and some formal jobs are not covered by the administrative records data but may be captured in the survey data. Second, some survey respondents may have over-reported their earnings and employment levels due to recall error or other reasons. Third, some employers may have inaccurately reported (or not reported) sample members' earnings to the government. Finally, the administrative records data may have missed earnings from sample members with SSNs (or other identifying information) that were incorrectly reported by employers or sample members.

To examine reasons for the reporting differences, we use available job information from the long-term follow-up interview. These survey data contain some information on jobs that sample members held during the follow-up period. However, the survey was not structured to gather sufficiently detailed information to determine whether jobs were or were not likely to have been reported to the government. Thus, our analysis is somewhat limited by data constraints. Still, it provides important insights into the reasons that earnings levels are so much higher in the survey than administrative data.

In order to compare individual-level differences in survey- and UI-based earnings, we conducted our analyses including only customers who completed the long-term follow-up interview. Our analysis focuses on employment and earnings in quarter 22 after random assignment. This quarter was selected because it is the last quarter for which long-term follow-up data is available for all these customers—it is the minimum time between random assignment and the long-term survey interview. Focusing on the most recent quarter available reduces recall error associated with survey measures.

1. Differences in Reported Employment and Earnings

Appendix Table I.1 displays summary statistics related to individual employment and earnings as reported in the survey and administrative data. These statistics are presented for the full sample and for those employed according to both data sources, separately for customers by ITA approach. Because the goal of this descriptive analysis is to examine reporting differences at the individual level, sample weights were *not* used in the analysis.

Appendix Table I.1. Survey- and UI-Based Employment and Earnings and the Distribution of Survey-UI Earnings Differences, by ITA Approach

	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice
Full Sample			
Employed based on:			
Survey Data	82	82	83
UI Wage Records	65	67	66
Both	60	63	63
Earnings based on:			
Survey Data	$7,611	$7,140	$7,457
UI Wage Records	$5,399	$5,488	$5,711
Survey-UI Earnings Difference	$2,213	$1,652	$1,746
Percentile of Survey-UI Earnings Difference Distribution			
10	-$2,589	-$2,651	-$2,635
25	-$452	-$540	-$418
50	$409	$134	$242
75	$3,881	$2,902	$3,081
90	$9,681	$7,768	$9,167
Employed in Both Data Sources			
Earnings based on:			
Survey Data	$9,275	$8,730	$8,848
UI Wage Records	$8,535	$8,440	$8,747
Survey-UI Earnings Difference	$740	$289	$102
Percentile of Survey-UI Earnings Difference Distribution			
10	-$2,801	-$3,274	-$3,175
25	-$866	-$1,050	-$960
50	$350	$88	$181
75	$1,915	$1,616	$1,510
90	$4,634	$4,503	$4,038
Sample Size	**1,097**	**1,080**	**1,076**

Source: Long-term follow-up survey and State UI wage records

Notes: All figures unweighted.

As discussed, the employment rate in quarter 22 after random assignment is substantially higher according to the survey than UI data (Table I.1). For all three ITA approaches, the employment rate is about 82 percent using the survey data, compared to about 66 percent using the UI data. Slightly more than 60 percent of customers in all three approaches were reported as employed in both data sources. About 93 percent of workers in the UI wage records were also employed according to the survey data. Thus, there is considerable overlap in employment status using the survey and UI data *among* those identified as workers in the UI wage records.

For the full sample, earnings levels are substantially higher using the survey data than the UI data on average and for most customers (Table I.1). Median differences are smaller than mean differences, because reporting differences are large and positive for a substantial fraction of sample members. (That is, the distribution of differences is skewed to the right.) However, we find that survey-based earnings per job are larger than administrative-based earnings for about 75 percent of workers. This result is similar for customers in all three ITA approaches. Thus, differences in reported earnings are common and the large mean survey-UI earnings differences are not due solely to a small number of people who reported much higher earnings in the survey.

For the sample that is reported as employed in both data sources, survey-UI earnings differences are still common but are much smaller in magnitude, particularly in the upper percentiles of the survey-UI earnings difference distribution. This pattern suggests that the omission of certain jobs from the UI wage records may be more important in explaining the overall gap between survey- and UI-based earnings than is over-reporting of earnings among those who are employed. In the next section, we develop a framework for formally assessing this hypothesis.

2. Decomposing UI and Survey Earnings Differences into Their Component Parts

Differences in quarter 22 earnings based on the survey and UI data can be decomposed into differences due to (1) employment levels and (2) earnings among those who are employed. To calculate the relative contribution of these components, we express the overall mean difference in survey-based and UI-based earnings as follows:

$$(1) \quad (\overline{E}_S - \overline{E}_{UI}) = \frac{\overline{E}_S}{\overline{W}_S}\overline{W}_S - \frac{\overline{E}_{UI}}{\overline{W}_{UI}}\overline{W}_{UI}$$

where E_S is mean earnings using the survey data, E_{UI} is mean earnings using the UI data, the W_i ($i = S, UI$) represent employment rates according to the survey and UI data. After adding and subtracting relevant terms, the gap between survey-based and UI-based earnings can be expressed as a weighted sum of the ratios in the right-hand side of equation (1) as follows:

$$(2) \quad (\overline{E}_S - \overline{E}_{UI}) = (\overline{W}_S - \overline{W}_{UI})\frac{\overline{E}_S}{\overline{W}_S} + \left(\frac{\overline{E}_S}{\overline{W}_S} - \frac{\overline{E}_{UI}}{\overline{W}_{UI}}\right)\overline{W}_{UI}$$

Equation (2) can then be used to decompose overall mean earnings differences into its component parts. The first term represents the portion of the gap that is due to differences in employment rates. This term is most strongly related to fact that UI records do not include certain types of workers and is therefore missing some employment. The second term represents the portion of the gap that is due to differences in earnings reports for those who are employed. This term is likely related to earnings reporting error in both the survey and UI data.

For customers in all three approaches, we find that differences in employment rates contribute much more to the overall gap between survey- and UI-based earnings than do differences in earnings among the employed (Table I.2). However, differences in earnings among the employed are relatively more important in explaining the survey-UI earnings gap for Structured Choice customers. For Guided Choice and Maximum Choice customers, about 85 percent of the survey-UI earnings gap is due to differences in employment rates, with the remaining 15 percent being due to differences in earnings among the employed. For Structured Choice customers, the portion of the gap due to differences in employment rates is 70 percent, with the remaining 30 percent being related to differences in earnings among the employed.

The implication of these decomposition results is that in seeking explanations for differences in levels of earnings between the survey and UI data, we should focus primarily on factors that may lead to differences in employment rates in the two data sources, such as the fact that UI data do not cover certain employment sectors. However, in seeking explanations for the larger Structured Choice impacts on earnings in the survey data compared to the UI data, we should focus on factors that may lead to differences in earnings reports in the two data sources. We explore potential explanations for discrepancies in survey- and UI-based employment rates and earnings reports in the following two sections.

Appendix Table I.2. Decomposition of Differences in Mean Quarter 22 Earnings Estimates Based on Survey and UI Wage Records Data

	Difference In Survey- and UI-Based Mean Earnings	Difference in Survey- and UI-Based Mean Earnings Attributable to:			
		Differences in Employment Rates		Differences in Earnings Among the Employed	
		Dollars	Percentage	Dollars	Percentage
Structured Choice	$2,252	$1,583	70	$669	30
Guided Choice	$2,214	$1,850	84	$364	16
Maximum Choice	$1,755	$1,486	85	$269	15

Source: Long-term follow-up survey and State UI wage records

Notes: All figures were calculated using sample weights to adjust for the sample and survey designs.

B. EXPLANATIONS FOR EMPLOYMENT RATE DISCREPANCIES

In order to explore possible explanations for discrepancies in survey- and administrative-based employment rates, we compared the characteristics of employment reported in *both* the survey and UI data with the characteristics of employment reported in the survey data *only*. We expect that the survey-only employment was less likely to have been covered by UI than employment reported in both data sources. We examined three types of characteristics likely to be associated with UI coverage: (1) inter-state mobility, (2) employment in job types with low UI coverage, such as self-employment and employment in certain occupations, and (3) employment in jobs with characteristics associated with formal employment, such as full-time status and provision of fringe benefits.

Throughout this analysis, employment characteristics were obtained from the survey data, and pertain to employment during quarter 22 after random assignment. Because the UI wage records provide little information about job characteristics (and in some cases provide no employer-level data), it is not possible to "match" specific jobs from the survey data to employment in the UI wage data. Therefore, employment characteristics apply to any employment held during quarter 22 rather than to a particular job.

As a complement to the analysis of employment characteristics by survey-only employment status, we also compare the survey- and UI-based employment rates for customers with each employment characteristic examined above. Groups with higher UI coverage should have survey- and UI-based employment rates that are more similar, while those with lower UI coverage should have employment rates that are more different. We use these rates in combination with the decomposition framework developed in the previous section to simulate the change in the survey-UI earnings gap that would be expected if the UI records for low UI coverage groups more closely matched their survey reports. Specifically, we simulated the change in the gap that would result if the UI-to-survey employment rate ratio for the low coverage group was the same as the survey-to-UI employment rate ratio for the high coverage group. This simulation helps us translate the observed differences in survey-UI employment rate agreement for customers with different employment characteristics into an estimated contribution toward explaining the discrepancy in UI-based and survey-based earnings.

As an example of this simulation, consider customers who moved to a different state at some point during the follow-up period. These customers represent a low UI coverage group since out of state wages are not included in state UI records. Therefore, we should find that

$$(3) \quad \frac{\overline{W}_{UI}^{Low}}{\overline{W}_{S}^{Low}} \langle \frac{\overline{W}_{UI}^{High}}{\overline{W}_{S}^{High}}$$

where $\overline{W}_{i}^{High}$ ($i = S, UI$) represents employment rates according to the survey and UI data for the high coverage group (in this example, those who remained in the same state) and $\overline{W}_{UI}^{Low}$ represents analogous employment rates for the low coverage group UI (in this example, those who did not remain in the same state). We simulate the UI-based employment rate of the low coverage group by assuming that the UI coverage of survey-based employment for

the low coverage group is as the same as that for the high UI coverage group. This is done by multiplying the survey-based employment rate of the low coverage group by the UI-to-survey employment ratio for the high coverage group:

$$(4) \quad \overline{W}_{UI}^{Low,Sim} = \overline{W}_{S}^{Low} * \frac{\overline{W}_{UI}^{High}}{\overline{W}_{S}^{High}}$$

Next, we estimate a simulated overall employment rate based on the actual employment rate of the high coverage group and the simulated employment rate of the low coverage group:

$$(5) \quad \overline{W}_{UI}^{Overall,Sim} = p^{Low} * \overline{W}_{UI}^{Low,Sim} + p^{High} * \overline{W}_{UI}^{High}$$

where p^{High} is the proportion of the sample in the high coverage group and p^{Low} is the proportion in the low coverage group. Finally, we combine equations (5) and (2) to simulate the change in the survey-UI earnings gap that would be associated with higher simulated UI coverage rates for the low coverage group (while assuming no additional change due to differences across sources in earnings among the employed):

$$(6) \quad \left(\overline{W}_{UI} - \overline{W}_{UI}^{Overall,Sim}\right) \frac{\overline{E}_{S}}{\overline{W}_{S}}$$

For context, based on this formula and the values in the data, the gap between UI- and survey-based mean earnings will decrease by about $90 (or 4 percent) for every percentage point that the UI-based employment rate increases. Thus, the formula tells us that relatively small changes in UI-based employment rates lead to relatively large changes in the gap between UI- and survey-based mean earnings. This relationship is consistent with expectations since the omission of each job from UI wage records may represent the omission of a substantial portion of an individual's earnings.

Inter-state mobility. State UI wage records exclude earnings from customers' out-of-state jobs, as well as earnings from customers who moved to a different state at some point during the follow-up period. Therefore, it is much more likely that the employment of customers who remain in the same state throughout the study will be represented in the UI data. Indeed, we find that nearly all customers with quarter 22 employment reported both data sources were located in the same state at baseline and in the two follow-up interviews (Table I.2). The rate of same state location is significantly lower among those with survey-only employment, at just under 75 percent. This pattern is similar for customers in all three approaches.

Inter-state mobility is fairly uncommon in our sample. Across the three ITA approaches, about 9 percent of survey respondents are located in a different state at either of the two follow-up interviews (Table I.3). This is almost certainly an underestimate of inter-state mobility in the sample since we do not know if customers were located in different states between follow-up interviews. In addition, this figure does not account for employment in out-of-state jobs held while living in the original state.

Appendix Table I.3. Characteristics of Customers with Reported Quarter 22 Survey-Based Employment, by Agreement of Survey- and Administrative-Based Employment Status and ITA Approach

	A1: Structured Choice		A2: Guided Choice		A3: Maximum Choice	
	Employed in Both Survey and UI Data	Employed in Survey Data Only	Employed in Both Survey and UI Data	Employed in Survey Data Only	Employed in Both Survey and UI Data	Employed in Survey Data Only
Inter-State Mobility						
Same State at Baseline and Both Follow-Ups	98***	72	98***	70	99***	74
Job Types with Low UI Coverage						
Self-Employed or Employed in Low UI Coverage Occupation	3***	14	3***	11	3***	16
Job Characteristics Associated with Formal Employment						
Full-Time Job	92**	87	89	85	91*	86
Job Offering Hourly Wage of at Least $20	29**	36	31	25	25	31
Job Offering:						
Health Insurance	84***	62	81***	62	85***	62
Paid Leave	86***	65	83***	63	87***	65
Retirement Benefits	78***	55	74***	57	79***	55
Sample Size	**655**	**240**	**682**	**202**	**677**	**213**

Source: Long-term follow-up survey

Notes: All figures unweighted.

* / ** / *** Both-data-source estimate significantly different from survey-only estimate at the 0.10 / 0.05 / 0.01 level.

Despite its infrequency and underestimation, inter-state mobility has very important implications for the discrepancy in survey- and administrative-based employment and earnings reports. This is because there is a very large difference in the survey- and UI-based employment rates for those who moved away from their original state. Across all three approaches, this group of customers has a survey-based employment rate of about 80 percent and a UI-based employment rate of only about 16 percent (Table I.3). By contrast, those who remain in the same state have a survey-based employment rate of about 80 percent and a UI-based employment rate of about 70 percent. This pattern suggests that a large majority of the employment of those who move to a different state is not included in the UI records. The employment simulation analysis indicates that if the UI coverage of employment for customers who moved to a different state were the same as those who remained in the same state, the UI-based employment rate would increase from about 66 percent to about 70 percent, translating to more than a 20 percent decline in the gap between survey-based and UI-based average earnings (Table I.3). In other words, one-fifth of the gap between survey-based and UI-based average earnings can be explained by the omission of out-of-state wages from UI wage records.

Employment in job types with low UI coverage. UI wage records do not cover workers in some formal jobs. These workers include self-employed people, federal workers, military staff, agricultural labor (except workers on large farms), and domestic service workers.[13] We anticipate that survey-only employment is more likely to be in these "low-coverage" sectors. Therefore, we examined the prevalence of self-employment and employment in military or agricultural work among those with employment in both data sources and those with survey-only employment. Workers in low coverage sectors were identified using survey information on reported job occupations (which were open-ended responses coded into three-digit SOC codes). The survey did not collect information on type of employer, so we cannot identify other categories of workers unlikely to be covered by UI, such as federal workers. Therefore, our estimates of employment in low coverage sectors likely understate its true prevalence.

About five percent of workers across ITA approaches reported in the survey that they worked in these low coverage sectors during quarter 22. About four percent were self-employed and less than one percent worked in the military or in agricultural occupations. We expect that some sample members in these low-coverage jobs were actually covered by the UI program. UI wage records cover about 94 percent of workers nationally (U.S. General Accounting Office 2002), but U.S. workers in the low coverage sectors described above comprise more than 6 percent of all U.S. workers.[14] Thus, some of these low coverage U.S. workers must have actually been covered by the UI program. For example, some farmers and domestic workers are covered by the UI program, although it is not possible to

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[13] Federal workers and military staff are eligible to receive UI benefits. Their earnings are not reported to state UI agencies, however, and so are not in the UI wage records.

[14] In 1999, 2.1 percent of all workers nationally reported working for the federal government, 7 percent were self-employed, 3.5 percent worked in agricultural-related occupations, and 1 percent worked in private household occupations (Statistical Abstract of the United States 2000).

determine from published statistics (or our survey data) the number of such workers. Furthermore, there is often ambiguity about reported self-employment status.

Consistent with our expectations, we find that employment in low coverage sectors is much less common among customers with employment in both data sources than among those with survey-only employment (Table I.3). Across all three approaches, three percent of those with employment in both data sources were employed in "low coverage" sectors, compared to about 14 percent of those with survey-only employment.

Despite the confirmation of our expectations about the relative prevalence of employment in low coverage sectors among customers with survey-only employment, the contribution of this factor to the overall discrepancy between survey- and UI-record-based employment measures is smaller than that of inter-state mobility. This is partially because employment in low coverage sectors is less common than inter-state mobility. In addition, the difference between the survey- and UI-based employment rates for those in low coverage sectors is large, but not as large as the analogous difference for those who moved to a different state. Across all three approaches, customers employed in low coverage sectors had a survey-based employment rate of 100 percent and a UI-based employment rate of only about 40 percent.

The employment simulation analysis indicates that if the UI coverage of employment for customers in low-coverage sectors were the same that of other customers, the UI-based employment rate would increase from about 66 percent to about 68 percent, translating to about a 10 percent decline in the gap between survey-based and UI-based average earnings (Table I.4). Thus, one-tenth of the gap between survey-based and UI-based average earnings can be explained by the omission of employment in low coverage sector from UI wage records. This estimate would likely be higher if we were better able to identify which customers were employed in additional low coverage sectors, such as federal employment.

Employment in jobs with characteristics associated with formal employment. Another possible explanation for the lower employment levels in the UI data is that earnings from informal (casual or cash-only) jobs are covered in the survey data but not in the UI data. We expect that the survey-only jobs were more likely to have been informal jobs than those reported in both data sources. Thus, we anticipate that the survey-only workers had less employment in (1) full-time jobs, (2) high wage jobs, and (3) jobs offering fringe benefits.

The hypotheses related to full-time and high wage jobs are not supported by the data (Table I.3). Employment in full-time jobs is similar for customers with employment in both surveys and for those in the survey-only group. Counter to expectations, employment in high-wage jobs is actually lower for Structured Choice and Maximum Choice customers with employment in both surveys than for their survey-only group counterparts, although this difference is only statistically significant for Structured Choice customers.

The hypothesis related to employment in jobs offering fringe benefits is supported by the data (Table I.3). Customers employed in both data sources were significantly more likely to have each of the three types of fringe benefits examined than customers with survey-only employment. These differences are significant at the one-percent level for all three benefit types for all three ITA approaches.

Appendix Table I.4. Simulation of Change in Gap Between UI- and Survey-Based Earnings Based on Alternative UI-based Employment Rates, by Customer Characteristic and ITA Approach

	A1: Structured Choice				Simulated:		A2: Guided Choice				Simulated:		A3: Maximum Choice				Simulated	
	%. With Char.	W_s	W_{UI}	$\dfrac{W_s}{W_{UI}}$	W_{UI}	% Change in Gap	%. With Char.	W_s	W_{UI}	$\dfrac{W_s}{W_{UI}}$	W_{UI}	% Change in Gap	%. With Char.	W_s	W_{UI}	$\dfrac{W_s}{W_{UI}}$	W_{UI}	% Change in Gap
Inter-State Mobility																		
Same State at Baseline and Both Follow-Ups																		
Yes	91	82	70	85	--	--	92	82	71	87	--	--	92	83	71	85	--	--
No	9	82	15	18	70	--	8	82	17	20	71	--	8	78	13	17	66	--
Either	100	82	65	79	70	-21	100	82	67	81	71	-24	100	83	66	80	70	-22
Job Types with Low UI Coverage																		
Self-Employed or Employed in Low UI Coverage Occupation																		
Yes	5	100	39	39	82	--	4	100	51	51	83	--	5	100	37	37	83	--
No	95	81	66	82	--	--	96	81	67	83	--	--	95	82	68	83	--	--
Either	100	82	65	79	67	-11	100	82	67	81	68	-7	100	83	66	80	69	-12

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	A1: Structured Choice						A2: Guided Choice						A3: Maximum Choice					
					Simulated:						Simulated:						Simulated	
	%. With Char.	W_s	W_{UI}	$\dfrac{W_s}{W_{UI}}$	W_{UI}	% Change in Gap	%. With Char.	W_s	W_{UI}	$\dfrac{W_s}{W_{UI}}$	W_{UI}	% Change in Gap	%. With Char.	W_s	W_{UI}	$\dfrac{W_s}{W_{UI}}$	W_{UI}	% Change in Gap
Job Characteristics Associated with Formal Employment																		
Employed in Job Offering Health Insurance																		
Yes	64	100	79	79	--	--	63	100	81	81	--	--	66	100	81	81	--	--
No	36	49	41	83	38	--	37	51	41	81	41	--	34	50	38	76	40	--
Either	100	82	65	79	64	1	100	82	67	81	67	-1	100	83	66	80	67	-4

Source: Long-term follow-up survey and State UI wage records

Notes: For the group with expected lower UI coverage, simulated UI-based employment rate is the product of the observed survey-based employment rate for the low coverage group and the UI-to-survey employment rate ratio for the high group. The overall simulated UI-based employment rate is a weighted average of the observed UI-based employment rate for the high UI coverage group and the simulated UI-based employment rate for the low UI coverage group. The simulated change in the survey-UI earnings gap is based on the simulated overall UI-based employment rate.

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Although these results provide some evidence that the survey-only jobs were more likely than the jobs reported in both data sources to be informal jobs, the contribution of informal employment to the overall survey-administrative employment rate discrepancy is modest. This is because the difference between the survey- and UI-based employment rates is similar for customers employed in jobs with characteristics associated with formal employment and those who are not. As a result, simulated UI-based employment rates are similar to observed UI-based employment rates, leading to simulated UI-survey earnings gap that is similar to the observed UI-survey earnings gap. Table I.4 provides an example of this pattern based on simulation results related to employment in a job offering health insurance. Among those who were not employed in a job offering health insurance benefits during quarter 22, UI-based employment rates were about 40 percent, or four-fifths of the survey-based employment rate of about 50 percent. The ratio of survey-based employment to UI-based employment was very similar among those who were employed in a job offering health insurance during quarter 22. As a result, the simulated UI-based employment rate is nearly identical to the observed UI-based employment rate. Therefore, little to none of the gap between survey-based and UI-based average earnings can be explained by the omission of employment in that does not offer health insurance benefits and is thus more likely to be informal work.

C.   EXPLANATIONS FOR EARNINGS DISCREPANCIES

As shown in our decomposition framework, overall mean earnings differences according to the survey and UI data are due not only to differences in quarterly employment rates, but also to differences in earnings reports for those who are working. In this section, we examine which components of the survey earnings measure—weeks worked, hours worked, and hourly wages—are associated with larger survey-to-UI earnings differences and how this may be related to overreporting in the survey. Next, we examine whether the survey-to-UI earnings differences vary according to job quality measures.

1. Survey-to-UI Earnings Ratios by Components of the Survey Earnings Measure

The income that a worker earns in a job over a given period is the product of (1) the number of weeks worked on the job during the period, (2) the usual hours per week worked, and (3) the hourly wage rate. Consequently, differences in worker earnings using the survey and UI data can be attributed to survey-to-UI differences in each of these three components. A critical analysis objective is to ascertain which of these components is most important in explaining the large gap in mean earnings for workers as measured by the two data sources.

Ideally, we would like to compare differences in each of the three earnings components as reported by sample members and their employers. This is not possible, however, because the UI wage records do not contain the components of earnings. Instead, we examined the association between each of the earnings components—as measured by the survey—and the *ratio* of average survey-to-UI earnings. Thus, we assessed the extent to which the survey-to-UI earnings ratios vary by the number of weeks worked, the number of hours per week worked, and the hourly wage rate as measured by the survey. These results provide indirect evidence as to the earnings components that matter most in explaining the large gap in earnings using the survey and UI data.

The sample for this analysis consists of those who were classified as workers according to *both* data sources. In this sample, the ratio of survey-to-UI mean earnings is 1.48 for Structured Choice customers, 1.44 for Guided Choice customers, and 1.43 for Maximum Choice customers (Table I.5). Stated differently, mean quarter 22 earnings for workers are between 43 and 48 percent higher according to the survey than the UI data for customers in each ITA approach. Although the survey-to-UI earnings ratio for Structured Choice customers is not statistically different than the ratios for customers in the other two approaches, the fact that the Structured Choice ratio is higher than the other ratios contributes to the larger earnings impact using the survey than UI data.

To assess the extent to which the survey-to-UI earnings ratios vary by the number of weeks worked, the number of hours per week worked, and the hourly wage rate, we estimated a regression model in which the dependent variable is the survey-to-UI earnings ratio and the independent variables are the components of earnings. We hypothesized that the relationship between survey-to-UI earnings ratios and reported hours worked might be different at different points in the distribution of hours worked. Therefore, we estimated the regression equation using a set of categorical variables indicating whether the worker reported (1) less than 30 hours of work, (2) at least 30 hours of work but less than 40, or (3) at least 50 hours of work (at least 40 hours of work but less than 50 was the omitted category).[15]

This regression approach allows us to assess the relationship between survey-to-UI earnings ratios and the components of earnings while adjusting for the correlation among these measures. Our findings are similar when examining the components of earnings individually.

Our main finding is that the reported hours worked per week has a strong association with higher earnings reported in the survey than UI data, but that the other two components of the survey earning measure do not. In particular, we find that both workers with high reports of hours worked and those with low reports of hours worked have significantly higher survey-to-UI earnings ratios than workers reporting at least 40 but less than 50 hours of work (Table I.6). The implications of these two findings are discussed in turn below.

a. Survey-to-UI earnings ratios for workers with low reported hours of work

For all three approaches, workers with less than 30 hours of work had significantly larger survey-to-UI earnings ratios than workers with between 40 and 50 hours of work. Controlling for reported hourly wages and weeks worked, Structured Choice workers in the low hours category had ratios that were 0.80 higher than their counterparts in the at least 40 but less than 50 hours group, a difference that is statistically significant at the one percent level. In other words, the low hours group had survey-based earnings that were 80

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[15] We also estimated the model using a continuous measure of hours worked per week. In this specification, the coefficient on hours worked per week is positive and statistically significant at the one percent level. However, this finding masks important variation in the association of hours worked with survey-to-UI ratio. We also investigated whether there were non-linear effects for the other components of earnings. We found no evidence of a relationship between the survey-to-UI earnings ratio and hourly wage or weeks worked under these alternative specifications.

Appendix Table I.5 Simulation Results from Reducing Hours Worked Per Week in the Survey Data, by ITA Approach

	A1: Structured Choice		A2: Guided Choice		A3: Maximum Choice	
	Mean Hours Worked per Week, Survey Data	Ratio of Survey-to-UI Earnings	Mean Hours Worked per Week, Survey Data	Ratio of Survey-to-UI Earnings	Mean Hours Worked per Week, Survey Data	Ratio of Survey-to-UI Earnings
Cap on Hours Worked per Week (Hours)						
99 (benchmark)	43.5	1.48	42.5	1.44	43.3	1.43
70	42.8	1.47	41.9	1.42	42.8	1.41
60	42.2	1.45	41.2	1.40	42.0	1.39
50	40.7	1.41	39.8	1.36	40.5	1.35
Percentage Reduction in Hours Worked per Week						
10	39.1	1.36	38.2	1.31	38.9	1.31
15	36.9	1.29	36.1	1.24	36.8	1.25
25	32.6	1.16	31.9	1.12	32.5	1.12
35	28.3	1.02	27.6	0.99	28.1	0.99
Sample Size	**655**		**682**		**677**	

Source: Long-term follow-up survey

Notes: The sample includes only customers with reported employment in both the survey and UI wage records.

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Appendix Table I.6. Marginal Effects from Regression Model of the Ratio of Survey-to-UI Earnings in Quarter 22 on Earnings Measure Inputs, by ITA Approach

	A1: Structured Choice	A2: Guided Choice	A3: Maximum Choice
Hourly Wage	-0.001	0.009	0.004
Hours Worked Per Week			
Less than 30	0.801***	0.400*	0.410*
At least 30, Less than 40	0.068	0.524***	0.160
At least 40, Less than 50	--	--	--
At least 50	0.817***	0.572***	0.737***
Number of Weeks Worked	0.043	0.022	0.013
Sample Size	**655**	**682**	**677**

Source: Long-term follow-up survey and State UI wage records

Notes: The sample for this analysis includes only customers with reported employment in both the survey and UI wage records. All estimates derived from a single OLS regression model. Marginal effects for Structured Choice workers are simply the coefficient estimates from this model. Marginal effects for the other two groups are calculated as the sum of the base coefficient estimates and coefficients on approach-specific interaction terms.

* / ** / *** Estimate significantly different from zero at the 0.10 / 0.05 / 0.01 level.

percentage points higher than their UI-based earnings when compared to the omitted group. The adjusted difference between the high hours reported category and the omitted category is also large for Guided Choice and Maximum Choice customers (0.400 and 0.410 respectively), although these differences are smaller than the Structured Choice difference and are only marginally significant. The large survey-to-UI earnings ratios for low hours workers in all three approaches are consistent with the higher levels of survey earnings than UI earnings. That the ratio for the low hours reported group is larger for Structured Choice workers than other workers (though not significantly so) contributes toward the larger Structured Choice earnings impacts in the survey data than the UI data.

One possible explanation for the finding that workers with low hours of work have large differences in survey- and UI-based earnings is that these workers over-reported hours worked in their survey responses. This could be because they could not accurately recall their hours and wages if the work hours were irregular or the employment was informal. If the work was irregular and informal, it is also possible that employers under-reported earnings for these workers, which would also contribute to a larger survey-to-UI earnings ratio.

b. Survey-to-UI earnings ratios for workers with high reported hours of work

The pattern of survey-to-UI ratios for workers with high reported hours of work is similar to the pattern described for workers with low reported hours of work. For all three approaches, workers with at least 50 hours of work had substantially larger survey-to-UI earnings ratios than workers with between 40 and 50 reported hours of work. Controlling

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for reported hourly wages and weeks worked, Structured Choice workers in the high hours reported category had ratios that were 0.81 higher than their counterparts in the at least 40 but less than 50 hours reported group, a difference that is statistically significant at the one percent level. The adjusted difference between the high hours reported category and the omitted category is also very large and statistically significant for Guided Choice and Maximum Choice customers (0.572 and 0.737 respectively). The large survey-to-UI earnings ratios for high hours workers across all three approaches is consistent with the higher levels of survey earnings than UI earnings. That the ratio for the high hours reported group is larger for Structured Choice workers than Guided Choice workers (though not significantly so) contributes toward the larger Structured Choice earnings impacts in the survey data than the UI data.

One possible explanation for this finding is that some customers are over-reporting their hours worked on the survey. This could happen if the survey questions requesting information on hours worked were unclear or misleading. However, we do not believe that this was the case. For each job, the survey asked each worker the following simple question: (1) "How many hours did you usually work in an average week?" This data item was rarely missing, and there was no evidence that survey respondents had trouble responding to these questions.

Another possible reason for over-reporting hours could be that sample members reported high hours worked in the survey because of recall error. However, recall error would also affect the hourly wage variables and other job-related variables. Furthermore, it is unclear why recall error would systematically lead to overreporting of hours worked.

Still another possibility is that workers reported the number of hours that their employers *advertised* they would work rather than their actual hours. For example, some workers may have been hired as full-time workers but may have only worked part-time when demand for their services was low (for example, in "off-seasons" in retail trade occupations). Similarly, some workers may have actually worked less hours than they were supposed to have worked due to child care issues, transportation problems, or other reasons, but reported the hours they were supposed to have worked.

Of course, it is also possible that the survey data are accurate and that employers did not accurately report earnings from employees' overtime or other hours to the government.

To examine further the extent to which the hours worked component accounts for the gap in earnings per job using the survey and UI data, we simulated the effects of reducing hours worked on survey-based earnings levels, and hence, on the survey-to-UI earnings per job ratios. The simulations were conducted by (1) lowering the cap on hours per week worked from 99 hours to 70, 60, and 50 hours, respectively; and (2) reducing hours worked for all workers by 10, 15, 25 and 35 percent, respectively.

The simulation results show that reducing mean hours worked leads to reductions in the survey-to-UI earnings ratios, although earnings levels are still substantially higher according to the survey than UI data (Table I.6). For example, if hours are reduced by 10 percent for all workers (which assumes that workers overreported earnings by 10 percent in the survey), mean hours worked decrease from about 43 hours to about 38 hours for customers in all three approaches, while the survey-to-UI ratio decreases from about 1.45 to between 1.31

and 1.36. The survey-to-UI ratios reduce to 1.0 for workers in all approaches if hours for all workers were reduced by 35 percent. In this case the mean hours worked per week becomes about 28 hours. We believe that it is unrealistic to assume that hours worked were overreported to this extent and that mean hours worked were this low.

We also simulated reducing the cap on hours worked from 99 to various lower levels. These changes reduce the survey-to-UI earnings ratios, but not substantially enough to remove the survey-UI earnings gap (Table I.6). For example, capping hours at 50 hours per week, which affects about one-third of customers, reduces the earnings ratio from 1.48 to 1.41 for Structured Choice customers, from 1.44 to 1.36 for Guided Choice customers, and from 1.43 to 1.35 for Maximum Choice customers.

In sum, the apparent overreporting of hours worked in the survey data provides a partial explanation for the higher earnings per job levels in the survey than UI data. However, based on our simulations, reported hours would need to be reduced by about a third to close the survey-to-UI earnings gap completely. We believe that it is unlikely that the survey-to-UI differences in reported hours are that large. Thus, residual factors (including discrepancies in reported hourly wages and weeks worked) also account for some of the survey-to-UI earnings differences.

2.   Survey-to-UI Earnings Ratios by Job Characteristics

We hypothesize that earnings differences using the survey and UI data would be smaller for sample members who held higher quality jobs than for those who held lower quality ones. Those who held high quality jobs were probably more likely to have worked regular hours than their counterparts and thus may have more accurately recalled their usual hours worked, job start and end dates, and hourly wages. Furthermore, employers may have been more likely to report earnings for workers who held high quality jobs than for those who held irregular, informal ones.

To test this hypothesis, examined survey-to-UI ratios for groups of worker defined based on whether they were employed in (1) a full-time job, (2) a job offering hourly wages of at least $20, and (3) a job offering health insurance, paid leave, or retirement benefits. We expected the ratios to be smaller for workers in full-time jobs, high wage jobs, and jobs offering fringe benefits.

The results by full-time and fringe benefit status strongly support our hypothesis that reporting differences are smaller for those in higher quality jobs than lower quality ones, but the results for high-wage employment do not (Table I.7). Across all three approaches, survey-to-UI earnings ratios are significantly smaller for workers in full-time jobs than for other workers, with ratios ranging from 1.38 to 1.44 for full-time workers and from 1.88 to 1.97 for other workers. This suggests either that part-time workers could not accurately recall their hours and wages (perhaps because work hours were irregular) or that their employers did not accurately report their earnings.

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Appendix Table I.7. Ratio of Survey-to-UI Earnings in Quarter 22, by Job Characteristic and ITA Approach

	A1: Structured Choice		A2: Guided Choice		A3: Maximum Choice	
	Percent with Characteristic	Ratio of Survey-to-UI Earnings	Percent with Characteristic	Ratio of Survey-to-UI Mean Earnings	Percent with Characteristic	Ratio of Survey-to-UI Mean Earnings
Overall	100	1.48	100	1.44	100	1.43
Full-Time Job		***		***		***
No	8	1.97	11	1.61	9	1.88
Yes	92	1.44	88	1.41	91	1.38
Job Offering Hourly Wage of at Least $20						*
No	71	1.48	75	1.43	75	1.37
Yes	29	1.51	25	1.42	25	1.62
Job Offering Fringe Benefits		***		***		***
No	10	2.77	11	1.96	9	2.07
Yes	90	1.34	89	1.37	91	1.36
Sample Size	**655**		**682**		**677**	

Source: Long-term follow-up survey and State UI wage records

Notes: The sample includes only customers with reported employment in both the survey and UI wage records

* / ** / *** Estimate for customers with job characteristic significantly different from estimate for those without characteristic at the 0.10 / 0.05 / 0.01 level.

The pattern for workers in jobs offering fringe benefits is similar to the one for full-time workers. Across all three approaches, we find significantly smaller survey-to-UI earnings ratios for workers in jobs offering benefits than for workers in other jobs. This difference is the largest for Structured Choice workers, for whom we estimate a survey-to-UI earnings ratio of 1.34 for those in full-time jobs and 2.77 for those who are not, although the differences are also very large for Guided Choice workers (1.37 versus 1.96) and Maximum Choice workers (1.36 versus 2.07).

Counter to our expectations, we find little evidence that there are smaller survey-to-UI differences in earnings for workers in high-wage jobs (Table I.7). In the Structured Choice and Guided Choice approaches, workers employed in high-wage jobs had similar survey-to-UI earnings ratios to those employed in low-wage jobs. Maximum Choice workers in high wage jobs actually had higher survey-to-UI earnings ratios than low-wage workers, although the difference is only marginally significant.

Appendix I

D. SUMMARY OF FINDINGS

We have explored potential reasons that employment rates and earnings for workers in quarter 22 are higher using the survey than the UI data. Because of data limitations, our analysis could not fully identify all relevant factors explaining these employment and earnings differences, especially for the employment differences. However, we were able to identify some partial explanations and to discard others. Our main findings can be summarized as follows:

- *Differences in employment rates contribute much more to the overall gap between survey- and UI-based earnings than do differences in earnings among the employed.* For Guided Choice and Maximum Choice customers, about 85 percent of the survey-UI earnings gap is due to differences in employment rates, with the remaining 15 percent due to differences in earnings among the employed. For Structured Choice customers, the portion of the gap due to employment rates is 70 percent, with the remaining 30 percent related to earnings among the employed.

- *Inter-state mobility has very important implications for the discrepancy in survey- and administrative-based employment and earnings reports.* Simulation analysis suggests that one-fifth of the gap between survey-based and UI-based average earnings can be explained by the omission of out-of-state wages from UI wage records. This estimate may understate the true effect of out-of-state employment on the gap since we cannot identify which customers moved to a different state between surveys nor those who remained in the same state but worked in an out-of-state job.

- *Employment in sectors with low UI coverage, such as self-employment and agricultural or military work, also makes an important contribution to the survey-UI earnings gap.* Simulation analysis suggests that one-tenth of the gap between survey-based and UI-based average earnings can be explained by the omission of employment in low coverage sector from UI wage records. This estimate would likely be higher if we were better able to identify which customers were employed in additional low coverage sectors, such as federal employment.

- *The contribution of informal employment to the overall survey-administrative employment rate discrepancy is modest.* Little to none of the gap between survey-based and UI-based average earnings can be explained by the omission of employment without **characteristics** likely to be associated with formal work. This finding may be the result of our limited ability to identify informal employment.

- *The reported hours worked per week has a strong association with higher earnings reported in the survey than UI data, but that the other two components of the survey earning measure—hourly wage and weeks worked—do not.* Both workers with high reports of hours worked and those with low reports of hours worked have significantly higher survey-to-UI earnings ratios than workers reporting at least 40 but less than 50 hours of work. This finding may indicate that there is over-reporting of hours **worked** in the survey. However, simulation analysis indicates that survey reports of hours worked would have to be

45 percent lower to reduce the survey-to-UI earnings ratio to 1. We believe that it is unlikely that the survey-to-UI differences in reported hours are that large and that residual factors (including discrepancies in reported hourly wages and weeks worked) also account for some of the survey-to-UI earnings differences.

There is some evidence that customers in higher quality jobs have smaller differences between their survey- and UI-based earnings. Workers employed in full-time jobs had much lower survey-to-UI earnings ratios than those employed in other jobs. Similarly, workers employed in jobs offering fringe benefits had much lower survey-to-UI earnings ratios than those employed in other jobs. However, we find no differences in survey-to-UI earnings ratios based on whether workers were employed in high-wage jobs.

APPENDIX J

FORMS AND WORKSHEETS USED TO SUPPORT IMPLEMENTATION OF THE ITA EXPERIMENT

ITA

THE GUIDE
TO HIGH-RETURN TRAINING:

A RECIPE FOR SUCCESS
FOR INDIVIDUAL TRAINING
ACCOUNT CUSTOMERS

FOREWORD

Congratulations! You qualify for our one-stop training services! Our staff recognizes that training can be a big help to you. Training can greatly improve your chances to find work, earn good pay, and improve your career. Now you must decide on the best training for you.

Training decisions are complicated and important. Here are some reasons. Training may be expensive. The fact that we will help pay for training presents a terrific opportunity for you. Although you may still need to use other resources, the support our one-stop center will provide will surely help you. Training also represents an investment of more than just dollars. To succeed in training, you must also invest time and effort. You should consider your training decisions very carefully, to be sure that you get the *best* possible benefits from this effort.

Other factors are also important to consider before you choose a training course. How do you feel about returning to school? What is your learning style? What are your personal circumstances, needs, and pressures? Choosing the right program can mean the difference between successfully completing training or wasting an opportunity to help realize your dreams of a better career and a better life.

We want you to succeed in training! That's why we developed this booklet. The Guide to High Return Training should help you *succeed* in training and get started in a rewarding career.[16] As its title suggests, the guide is designed to help you identify "high return" training, which simply means training that will give you the *best* possible benefits from this important investment.

The Guide to High-Return Training was written to help you make good training decisions. It will help you to identify the benefits of training. It will also help you decide which training options are the most likely to meet your needs, and fit your lifestyle. The guide also explains the results of studies about the benefits of training. The findings from these studies may help you make good decisions.

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[16]This guide was developed by Mathematica Policy Research, Inc. with support from the U.S. Department of Labor. It was developed specifically for the Individual Training Account demonstration.

A ROAD MAP
FOR THE GUIDE TO HIGH-RETURN TRAINING

The Guide to High-Return Training outlines five steps that you can follow to make your training decisions:

Step 1: Select an occupation. First, you must decide what job to train for. Some customers train for a whole new occupation, while others build up the skills they already have to lead to better jobs.

Step 2: Identify your training options. Once you choose an occupation, you must decide how to get the best training. Often there are many ways to find the type of training you want. The guide will help you identify the training programs that are most likely to meet your needs.

Step 3: Evaluate your training options. Next, it is important to gather information that will let you to compare your training options. The guide outlines a process that you can use to compare the costs to the benefits of training for each program. This should help you decide which option is best for you.

Step 4: Choose a program. The guide outlines a process you and your counselor can follow to put all the pieces together--benefits, limitations, and preferences--in order to make a confident training selection.

Step 5: *Plan ahead.* Once you have selected a program, you must make sure that you can afford to pay for the training. Before you set out for training, it will be important to plan for upcoming household expenses and develop a workable household budget.

The rest of the guide follows this five-step roadmap. Clearly, not everyone who is thinking about training completes these steps as they are presented here. In fact, you may already have a good idea of the occupation for which you would like to train or the program you wish to attend. Regardless of where you are in the process of making your training decisions, the information this guide provides can help you be more *confident* in the choices you make.

STEP 1: SELECT AN OCCUPATION

With thousands of occupations available today, it may be hard to decide on the best career path for you. Following are steps you can follow to identify occupations that may be good for you:

Match your interests and background with occupations. To start, you should consider your interests, skills, education, and work experience. If you have worked before, you may want to explore occupations that are similar to or that build upon that type of work. After all, you know the work and know that it is something you can do. However, training can also represent a terrific opportunity to consider something *new*. You may want to explore a different line of work! If you are not sure about the type of work you would like to do or are ready for a change, your counselor can meet with you to help you identify other possible options.

Explore high-wage demand occupations. As you consider possible occupations, keep in mind differences in how much you could earn at different jobs. Also, consider the availability of jobs in each occupation. Both considerations are important. Unless you are willing and able to move to a different area, your best bet may be training for an occupation with good pay for which jobs are available in your local area. Your counselor can help you identify occupations that offer high wages and are in demand locally.

Consider possible career paths. Consider how much you are likely to get paid immediately after completing training, as well as the possibilities for growth within each of the occupations you are considering. Also consider the types of jobs you could advance to in your career, both with or without additional training.

Research your career options fully. Unless you have worked in the field before, you will probably want to find out important information about the occupations you are considering. Knowing about starting pay, career paths, and the availability of jobs locally is a good start, but is not enough to make a truly informed decision. Often there are aspects of the work you may not have thought of, such as daily activities, stress on the job, or how you will travel to the job. Also consider benefits beyond pay, such as vacation and health insurance, that may sway your decisions. Your counselor can provide tools and point you to one-stop resources that can help you research occupations.

Commit yourself to the occupation. The success of your training experience is based on your commitment to the occupation you choose. Before you decide to train for an occupation, you should make sure that you would be comfortable doing this type of work for some time. This is not to say that you will never change careers in the future, but unless you complete training, find a job, and stay there for a while, you may not get the full benefits from your investment in training.

STEP 2: IDENTIFY YOUR TRAINING OPTIONS

Once you have chosen an occupation, you will need to find out the ways in which you can get training. You are likely to have several training options that may differ in many ways. For example, you may only need to take a few courses to enter the occupation. Then again, it may be easier to find a job if you complete a program that grants a degree. Differences in location, cost, and time needed in training will be fairly easy to figure out. However, other differences between your training choices may be less obvious.

Before trying to choose a program, you should "narrow the field" by finding two or three options that meet your most important needs. Here are some good steps to take:

1. ***Match Your Needs with Training Programs.*** Before looking at any training programs, think about what is important to you in training. This may include things about both the occupation and your personal life. For instance, will you need to get a particular degree to work in the career you want? Do you need to stay in the local area or can you train and find work elsewhere? Can you train full-time or do you need a more flexible schedule, such as attending evening or weekend classes? What is the longest amount of time that you can stay in training? If getting ahead in the career you choose is likely to require more training, will you be able to transfer the credits from the training program that you complete to another program? Your counselor can help you sort out your basic training needs.

2. ***Select Programs to Explore Further.*** Once you have found your most important training needs, choose two or three state-approved training options to review in detail. Your counselor can then lead you through a series of exercises to help decide which of these options would be best for you.

Making sure that your training plans fit well with your life style is clearly important. These concerns, however, must be considered along with the benefits that you expect from training. As noted, training is an investment, and investments usually require some sacrifice. Therefore, before you dismiss whole categories of training programs based only on personal preferences or limitations, you may want to consider the following research findings:[17]

- Research shows that each additional year of college credits results in higher earnings. Furthermore, individuals who complete programs that confer a degree or other widely recognized credential often earn higher wages than those who complete the same amount of course work without receiving a degree (Kane and Rouse 1995).

- A study of displaced workers who attended community college in Washington State shows that individuals who complete technically oriented and/or scientific courses experience larger earnings gains than those who complete less technical courses (Jacobson et al. 2000).

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[17] When reviewing research studies, keep in mind that it may not be appropriate to apply some findings to your personal circumstances. Many studies refer only to specific groups of people or areas of the country. Furthermore, the evidence from studies on the effects of training is limited, and some studies may be inconclusive. Therefore, this research should be viewed only as food-for-thought as you make decisions about training.

STEP 3: EVALUATE YOUR TRAINING OPTIONS

Once you have identified several programs that seem likely to meet your most important training needs, you should take a closer look at these options. You will want to gather information about these programs so that you can compare them and make an informed, confident decision. You will want to know details about program requirements, the cost and length of the program, and financial aid options. Your counselor can provide tools and guide you to one-stop resources that can help you learn more about the programs you are considering.

Then, it will be important to look at the total investment each program would require and the benefits that you could expect to get from each. Your counselor can help you put these two pieces of information together--investments and benefits--to help you identify the training option (or options) that would benefit you the most.

Estimating Investments in Training. Investments in training include much more than a program's cost. You must consider the time and effort that you must invest in order to succeed in training. You will need to take into account the earnings you will give up in order to attend training, and your expenses related to training, such as transportation or child care. To figure out the investments that you would have to make, your counselor can help you evaluate the following for each of your training options:

- *Direct Costs.* These include costs that are directly related to the program you are considering. They include tuition, fees, and materials required to complete the program, such as books, tools, and other supplies.

- *Indirect Costs.* Indirect costs are expenses that are not related directly to the program you are considering but that you would have to pay in order to attend. For instance, you may have to pay for transportation to get to school or pay for child care in order to go to classes or spend time studying.

Estimating Wage Gains From Training. Your counselor can also help you estimate the increase in pay that you can expect to realize from training. You must compare the types of jobs you would be able to get if you did not attend training and those you could get after completing training. Completing training may also allow you to increase your work hours. Your counselor can help you understand how this will affect your earnings.

Evaluating the Net Benefits of Training. Your training options may require very different investments. To compare them, you should look at each program's benefits together with the investments. This way, you will be able to determine which programs would allow you to get back your investments and, more importantly, which would give you the *biggest* benefits.

STEP 4: CHOOSE A PROGRAM

Having figured out the benefits that you can expect from your different training options, you will be in a better position to select a program. Clearly, you will want to choose a program that gives you a *high* return on investment--that is, a program for which benefits are high compared to your investment in training.

When considering training options that seem to offer similar benefits, look at other program characteristics. For instance, one program's schedule or location may be more convenient for you. You may like the teaching style at one program better than the others. A program that costs slightly more may be more attractive because you would be able to complete it quicker, before your Unemployment Insurance benefits or severance payments run out. All of these things are important, since they could influence your chances of completing training.

STEP 5: PLAN AHEAD

After you have thought about all of these things and selected a program, you will want to make sure that you will be able to complete training and get the expected benefits. First, it will be important to figure out a way to cover your full costs of training. Second, you will want to make sure that you will be able to support yourself and your family while you go to training. Your one-stop counselor can help you develop a plan to pay for training and a workable household budget while you are in training.

- ***Determine How to Pay for Training.*** Your counselor can help you determine the total amount of money you will need to pay for training. The Individual Training Account, or ITA, should help you cover these costs. However, you may need additional help. Your counselor can help you apply for Pell grants, state grants, scholarships, or other programs for which you may qualify. If all these sources combined are still not enough to cover your total training costs, your counselor can help you decide if it would make sense to pay some training costs out of your own pocket, get student or personal loans, or consider other training programs.

- ***Develop a Household Budget.*** Before you begin training, it will be important to plan out your household expenses while you attend training. Your counselor will help you examine your household's income and financial responsibilities for the period while you would be attending training in order to develop a smart household budget. The more you plan, the better prepared you and everyone in your family will be for upcoming challenges and unexpected events, and the more likely you will be to work out these challenges successfully.

A FINAL NOTE

We hope that this Guide to High-Return Training will help you not only select the training that is right for you, but also increase your chances of *succeeding* in training and getting a rewarding career. Your one-stop counselor is ready to help you with *any* questions you may have about this guide and your career plans. Good luck!

REFERENCES

Jacobson, Louis, et al. *Participation in Community Schooling and Its Effects on Displaced Workers' Earnings and Employment Prospects: A Study of Displaced Workers from Washington State.* Rockville, MD: Westat, May 2000.

Kane, Thomas, and Cecilia Elena Rouse. "Labor-Market Returns to Two- and Four-Year College." *The American Economic Review,* vol. 85, no. 3, 1995, pp. 600-614.

APPENDIX J.2

PROGRAM RESEARCH

ITA ◆

| **Participant:** _____ | **Date:**_____ |

INSTRUCTIONS: This worksheet will help you gather information about the programs that provide training for the occupation you have chosen. To help you decide which program is best for you, be sure to complete a separate form for each of the programs that you are considering. Try to use as many resources as possible when completing this form. Available resources include: (1) resource materials in the one-stop center, (2) visits to the prospective programs, and (3) interviews with current students, graduates, instructors, or administrators.

Vendor: _____

Program: _____

1. How long has the vendor been providing this type of training? _____

2. When does the next set of classes begins? _____

3. What is the application deadline? _____

4. What are the program's entry requirements? _____

   _____

5. What is the program's typical class size? _____

6. What percentage of applicants are typically accepted? _____

7. What is the program's duration? (How long does it take to complete?) _____

8. How is the program structured (for example, number of terms, classes per term, hours per week, timing of

   classes—day/evening/weekend)? _____

   _____

9. How much does it cost to attend this program? (What are tuition and fees per term? How have program

   costs changed over recent years?)_____

   _____

10. What other expenses are typically required (such as books, basic supplies, tools, uniforms, etc.)? _____

    _____

11. What financial aid options are available?_____

12. What are the program's completion requirements? _____

_____

13. What degrees or certificates do students receive upon program completion? _____

_____

14. What percentage of students actually graduate (overall and within the past year)?_____

15. What types of jobs do graduates typically get? What types of businesses tend to employ them? _____

_____

_____

16. What are the average starting wages of graduates? _____

17. What are the average starting benefits of graduates? _____

18. What types of employment placement assistance is provided to graduates? _____

_____

_____

19. What do students tend to like and dislike about the program?_____

_____

_____

20. Am I likely to need to change my current child care arrangements if I attend this program?   (If yes,

describe.)_____

21. How far is the program from my home? Will I have reliable transportation to and from school? Will I need

to room near the program? (If yes, describe.)_____

_____

22. Other important considerations: _____

_____

_____

Appendix J

EXHIBIT J.3

TRAINING COSTS

ITA ◈

INSTRUCTIONS: This worksheet will help assess how the costs of each training program you are considering compare to the resources you have available to pay for training. In the first column, enter the costs and resources for each term/session. Based on the number of terms/sessions that it will take you to complete the program, in the second column, estimate the total costs of the program and total resources you will have available.

Vendor: _____

Program: _____

Duration (in terms or sessions): _____

A.	**DIRECT TRAINING COSTS**		**Amount Per Term**				
	Tuition and Fees						
	Books						
	Supplies						
	Tools						
	Uniforms				**Number**		
	Other:	+			**of Terms**		**Subtotal**
	Subtotal for Direct Costs			**x**		**=**	
B.	**INDIRECT TRAINING COSTS**						
	Transportation						
	Room and Board						
	Child Care						
	Other:				**Number**		
	Other:	+			**of Terms**		**Subtotal**
	Subtotal for Indirect Costs			**x**		**=**	
C.	**ESTIMATED NON-ITA TRAINING RESOURCES**						
	Pell Grants						
	State Grants						
	Scholarships						
	Personal Savings or Loans				**Number**		
	Other:	+			**of Terms**		**Subtotal**
	Subtotal for Non-ITA Resources			**x**		**=**	
D.	**UNSUBSIDIZED TRAINING COSTS** (Direct Costs + Indirect Costs - Non-ITA Resources)**:**						

Appendix J

EXHIBIT J.4

TRAINING COSTS AND BENEFITS WORKSHEET

— FOR COUNSELOR USE ONLY —

Participant:_____   **Counselor ID:**_____
                                                                                  Date:

	1	2	3
OCCUPATION	_____	_____	_____
PROGRAM	_____	_____	_____
I. INVESTMENT IN TRAINING			
Program Costs			
A. Direct Training Costs (from Training Costs Form)........................	$_____	$_____	$_____
B. Indirect Training Costs (from Training Costs Form).....................	$_____	$_____	$_____
C. TOTAL PROGRAM COSTS (A + B)..	$_____	$_____	$_____
II. GAINS FROM TRAINING			
Earnings Increase in First Year After Training			
D. Estimated Wages Upon Completion of Training.............................	$_____ per week	$_____ per week	$_____ per week
E. Wages If Customer Did Not Attend Training.................................	$_____ per week	$_____ per week	$_____ per week
F. Weekly Wage Increase After Training (D - E)...............................	$_____ per week	$_____ per week	$_____ per week
G. Yearly Work Schedule Upon Completion of Training...................	_____ weeks per year	_____ weeks per year	_____ weeks per year
H. ESTIMATED EARNINGS INCREASE (F * G)........................	$_____ per year	$_____ per year	$_____ per year
J. PRESENT VALUE OF EARNINGS GAINS (4 * H)...................	$_____	$_____	$_____
III. ESTIMATED NET EARNINGS GAINS [J - C]..........................	$_____	$_____	$_____

Appendix J

Exhibit J.4 *(continued)*

PROGRAM ENDORSEMENT WORKSHEET
— FOR COUNSELOR USE ONLY —

(Refer to previous page for program descriptions)	1	2	3
1. **Is the program expected to have positive (+) net benefits from training?**	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
2. **Does the program seem appropriate for the customer?** - Do the customer's skills and interests match the occupation/program? - Does the program appear feasible with the ITA and other resources?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
3. **Does the customer have a reasonable chance of completing training?** - Do program attendance requirements seem compatible with the customer's circumstances? - Could the customer reasonably support him/herself and his/her family for the duration of training?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
4. **Does the customer have a reasonable chance of finding employment in this occupation if s/he completes the program?** - Is this a high-wage occupation in demand in the local area? - Do program graduates have a reasonable record of success finding employment? - Is the customer planning or willing to relocate to another area? - Does the customer already have employment lined up?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
5. **Relative to the other programs being considered, does this program offer the highest estimated net earnings gains (Item III)?** NOTE: *Programs within $500 of the highest value should ALL be marked YES.*	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
6. **Are there other factors leading you to endorse this program?** NOTE: *If marked yes, counselor MUST provide an explanation.* - Does this program include features that significantly improve the customer's chances of completing training (e.g., individualized or integrated basic skills instruction)? - Does the vendor have a particularly strong track record which could lead to better employment outcomes for the customer (e.g., higher wages at placement which mean a higher wage replacement rate if the customer is a dislocated worker)? - If the customer is considering different occupations, would this program provide access to jobs that are more appealing for important non-wage reasons (e.g., they match the customer's interests more closely, offer benefits, or give access to a career ladder)? [*If so, recommend the program with the **highest** estimated net gains among programs being considered of this type.*] - Are there other reasons why this program seems particularly appropriate for this customer (e.g., the customer could transfer credits or complete before UI benefits run out)?	☐ Yes ☐ No **Explain:**	☐ Yes ☐ No **Explain:**	☐ Yes ☐ No **Explain:**
COUNSELOR'S ENDORSEMENT: Is this program recommended? NOTE: *To recommend a program the following conditions must apply:* **(a) Questions 1, 2, 3, and 4 must ALL be checked YES** **AND** **(b) Either question 5 OR question 6 must ALSO be checked YES.**	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

EXHIBIT J.5

INCOME AND EXPENSES

ITA

Participant: _____	**Date:** _____
For training in [Program/Vendor]: _____	
Projected training period: **From:** _____ **To:** _____	

INSTRUCTIONS: As you make your final training choice, you can use this worksheet to examine whether you will have enough income to cover your living expenses while you attend training. When completing the form, think about the income and expenses that you have daily and monthly as well as those that occur less frequently, say once or twice a year. You should also consider special circumstances. For instance, if you will need to make a large payment (such as auto insurance) shortly after the training program ends, you should include the amount you will need to save for that payment while you are in training.

TOTAL INCOME WHILE IN TRAINING

	(A) INCOME	(B) NUMBER OF TIMES WHILE IN TRAINING	(Multiply A x B) INCOME WHILE IN TRAINING
WAGES			
Personal Wages (after tax) - Source 1	$ _____	x _____	= $ _____
Personal Wages (after tax) - Source 2	$ _____	x _____	= $ _____
Personal Wages (after tax) - Source 3	$ _____	x _____	= $ _____
Household Members' Wages (after tax)	$ _____	x _____	= $ _____
Household Members' Wages (after tax)	$ _____	x _____	= $ _____
Household Members' Wages (after tax)	$ _____	x _____	= $ _____
TOTAL WAGES:			$ _____
OTHER INCOME			
Unemployment Insurance (after taxes)	$ _____	x _____	= $ _____
TANF (Cash Assistance)	$ _____	x _____	= $ _____
GA (General Assistance)	$ _____	x _____	= $ _____
Food Stamps	$ _____	x _____	= $ _____
SSI (Supplemental Security Income)	$ _____	x _____	= $ _____
Worker's Compensation	$ _____	x _____	= $ _____
Child Support (after taxes)	$ _____	x _____	= $ _____
Alimony (after taxes)	$ _____	x _____	= $ _____
SSA or Survivor's Benefits (after taxes)	$ _____	x _____	= $ _____
Pension/Annuities (after taxes)	$ _____	x _____	= $ _____
Armed Services (after taxes)	$ _____	x _____	= $ _____
Other:_____	$ _____	x _____	= $ _____
Other:_____	$ _____	x _____	= $ _____
Other:_____	$ _____	x _____	= $ _____
Other:_____	$ _____	x _____	= $ _____
TOTAL OTHER INCOME:			$ _____
TOTAL INCOME (total wages + other income):			$ _____

Appendix J

EXHIBIT J.5 (*continued*)

TOTAL EXPENSES WHILE IN TRAINING

	(A) EXPENSE	(B) NUMBER OF TIMES WHILE IN TRAINING	(Multiply A x B) EXPENSES WHILE IN TRAINING
HOUSEHOLD EXPENSES			
Mortgage/Rent	$ _____	x _____	= $ _____
Property taxes	$ _____	x _____	= $ _____
Other taxes	$ _____	x _____	= $ _____
Food	$ _____	x _____	= $ _____
Utilities (Gas, Electric, Water)	$ _____	x _____	= $ _____
Telephone	$ _____	x _____	= $ _____
Other:_____	$ _____	x _____	= $ _____
TOTAL HOUSEHOLD EXPENSES:			$ _____
TRANSPORTATION			
Bus/Train/Subway	$ _____	x _____	= $ _____
Gasoline	$ _____	x _____	= $ _____
Vehicle repairs	$ _____	x _____	= $ _____
Vehicle insurance	$ _____	x _____	= $ _____
Other:_____	$ _____	x _____	= $ _____
TOTAL TRANSPORTATION:			$ _____
FAMILY CARE AND HEALTH			
Child care	$ _____	x _____	= $ _____
Elderly Care	$ _____	x _____	= $ _____
Insurance (health, dental, life)	$ _____	x _____	= $ _____
Medication	$ _____	x _____	= $ _____
Doctor visit co-pays	$ _____	x _____	= $ _____
Other:_____	$ _____	x _____	= $ _____
TOTAL FAMILY CARE AND HEALTH:			$ _____
CREDITORS			
Credit card debt	$ _____	x _____	= $ _____
Auto payments	$ _____	x _____	= $ _____
Loans (student, bank, etc.)	$ _____	x _____	= $ _____
TOTAL CREDITORS:			$ _____
MISCELLANEOUS			
Clothing	$ _____	x _____	= $ _____
Child support	$ _____	x _____	= $ _____
Entertainment	$ _____	x _____	= $ _____
Other:_____	$ _____	x _____	= $ _____
Other:_____	$ _____	x _____	= $ _____
TOTAL MISCELLANEOUS:			$ _____
TOTAL EXPENSES: **(household expenses + transportation + family care and health + creditors + miscellaneous)**			$ _____

NET CASH FLOW WHILE IN TRAINING (+/-):
Total Income minus Total Expenses: $ _____

Appendix J

EXHIBIT J.6

TRAINING BUDGET

ITA

Participant:	Date:
For training in [Program/Vendor]:	

INSTRUCTIONS: As a final step in confirming your training choice, consider whether it is financing feasible for you to complete the training program you have chosen. The calculations in Part I of this worksheet will help clarify how the out-of-pocket portion of training costs will affect your household's cash flow. You should use the Training Costs (TC) worksheet and the Income and Expenses (IE) worksheet to complete Part I. Once you have finished the calculations, you can use the questions in Part II of this form to discuss any cash flow issues with your ITA counselor.

CALCULATION OF NET CASH FLOW WHILE IN TRAINING

A. Direct Training Costs (see TC) $ _____
B. Indirect Training Costs (see TC) $ _____
C. Non-ITA Resources for Training (see TC) $ _____
D. Estimated ITA award (from counselor) $ _____
E. Out-of-Pocket Training Costs *(A + B - C - D)* $ _____

F. Net Cash Flow While in Training (see IE) $ _____

G. Net Cash Flow Minus the Cost of Training (*F - E*) $ _____

II. QUESTIONS FOR DISCUSSION WITH YOUR ITA COUNSELOR

If your net cash flow minus the costs of training (item G above) is expected to be negative (-):

• Are there other sources of income that you forgot to include in your calculations?

• Are there any monthly obligations that will end while you are in training?

• Is it possible to reduce any of your household's monthly expenses?

• If you do not already plan to do so, is it possible to work part-time while you attend training?

If your net cash flow minus the costs of training (item G above) is positive (+):

• Are any of your income sources potentially unstable (for example, will your Unemployment Insurance benefits run out while you are still in training)?

• Have you included all expenses that spike up during the training period (e.g., insurance payments, property taxes, etc.)?

• Do the monthly expenses that you calculated realistically reflect your lifestyle and your family's lifestyle?

EXHIBIT J.7

ITA

TRAINING OPTIONS COMPARISON

| Participant:_____ | Date: _____ |

INSTRUCTIONS: In order to choose the program that is right for you, you will need to evaluate the merits of each potential program. Presented below are several questions to help you and your counselor discuss your training options. When you talk with your counselor, be sure to bring the Program Research worksheet that you completed for each program.

OCCUPATION	_____	_____	_____
PROGRAM	_____	_____	_____
1. Does the program provide training for the occupation that you want to pursue? - Do graduates of program tend to find jobs that interest you? - Does the program and occupation closely match your interests? - Do graduates of the program have success finding good jobs that pay well?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
2. Will you be able to pay for the full cost of training at this program? - Will the program costs be fully covered by your ITA? - If not, can you access other sources of financial aid, use your personal savings, or take out personal loans to help pay for training?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
3. Do you have a reasonable chance of completing this program? - Are you confident that you have the skills needed to complete the program? - Can you support yourself and/or your family while you attend training? - Does the program seem compatible with your lifestyle and family circumstances? (For instance, will you be able to attend all your classes, do homework, and study for tests? Do you have friends or family who can help with some of your other responsibilities?)	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
4. Are there reasons, other than cost, that make this program seem more appealing than other programs that you are considering? - Can you complete the program before your UI or severance payments run out? - Is the program much shorter than the others? - Is the location of the program more convenient for you? - Is the course schedule more appealing (part-time vs. full-time, weekend or evening classes)? - Will you receive a degree or credential after completing the program? - Does the teaching style seem more appropriate for you?	☐ Yes ☐ No Explain:	☐ Yes ☐ No Explain:	☐ Yes ☐ No Explain:
RANK THESE PROGRAMS IN THE ORDER OF YOUR PREFERENCE: (Mark the program you like the best as number 1)			

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